Exhibit 6

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE TRANSITION PERIOD FROM TO

Commission File Number 001-36164

Twitter, Inc.
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**20-8913779** **(I.R.S. Employer Identification No.)**

1355 Market Street, Suite 900
San Francisco, California 94103
(Address of principal executive offices and Zip Code)

(415) 222-9670
(Registrant's telephone number, including area code)

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.000005 per share	TWTR	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The number of shares of the registrant's common stock outstanding as of July 26, 2019 was 773,017,657.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Quarterly Report on Form 10-Q include, but are not limited to, statements about:

- our ability to attract and retain users and increase the level of engagement, including ad engagement, of our users and its impact on revenue;
- our plans regarding health and user safety, including our expectations regarding the impact on our reported metrics, policies, enforcement and preventing manipulation of our platform;
- our expectations regarding monetizable DAU (mDAU), changes in cost per ad engagement and changes in ad engagements;
- our ability to develop or acquire new products, product features and services, improve our existing products and services, including with respect to Promoted Tweet product features, video and performance advertising, and increase the value of our products and services;
- our business strategies, plans and priorities, including our plans for growth and hiring, investment in our research and development efforts and our plans to scale capacity and enhance capability and reliability of our infrastructure, including capital expenditures relating to infrastructure;
- our work to increase the stability, performance and scale of our ads platform and our mobile application download product;
- our ability to provide new content from third parties, including our ability to secure live streaming video content on terms that are acceptable to us;
- our ability to attract advertisers to our platforms, products and services and increase the amount that advertisers spend with us;
- our expectations regarding our user growth and growth rates and related opportunities as well as the continued usage of our mobile applications, including the impact of seasonality;
- our ability to increase our revenue and our revenue growth rate, including advertising and data licensing and other revenue;
- our ability to improve user monetization;
- our future financial performance, including trends in cost per ad engagement, revenue (including data licensing revenue), cost of revenue, operating expenses, including stock-based compensation and income taxes;
- our expectations regarding certain deferred tax assets and fluctuations in our tax expense and cash taxes;
- the impact of the General Data Protection Regulation (GDPR) and other data and privacy regulation;
- the impact of content- or copyright-related legislation or regulation;
- our expectations regarding outstanding litigation or the decisions of the courts;
- the effects of seasonal trends on our results of operations;
- the impact of our future transactions and corporate structuring on our income and other taxes;
- the sufficiency of our cash and cash equivalents, short-term investment balance and credit facility together with cash generated from operations to meet our working capital and capital expenditure requirements;
- our ability to timely and effectively develop, invest in, scale and adapt our existing technology and network infrastructure;
- our ability to successfully acquire and integrate companies and assets; and
- our expectations regarding international operations and foreign exchange gains and losses.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Quarterly Report on Form 10-Q primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, operating results, cash flows or prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Quarterly Report on Form 10-Q. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Quarterly Report on Form 10-Q relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Quarterly Report on Form 10-Q to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

NOTE REGARDING KEY METRICS

We review a number of metrics, including monetizable daily active usage or users, or mDAU, changes in ad engagements and changes in cost per ad engagement, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Metrics” for a discussion of how we calculate mDAU, changes in ad engagements and changes in cost per ad engagement.

We define mDAU as Twitter users who logged in and accessed Twitter on any given day through Twitter.com or Twitter applications that are able to show ads. Our definition and calculation of mDAU is the same as that of the DAU data presented since the first quarter of 2016. The calculation of mDAU is not based on any standardized industry methodology and is not necessarily calculated in the same manner or comparable to similarly-titled measures presented by other companies. Average mDAU for a period represents the number of mDAU on each day of such period divided by the number of days for such period. Changes in mDAU are a measure of changes in the size of our daily logged in active user base. To calculate the year-over-year change in mDAU, we subtract the average mDAU for the three months ended in the previous year from the average mDAU for the same three months ended in the current year and divide the result by the average mDAU in the previous year. We believe that mDAU, and its related growth, are the best ways to measure our success against our objectives and to show the size of our audience and engagement.

The numbers of active users presented in this Quarterly Report on Form 10-Q are based on internal company data. While these numbers are based on what we believe to be reasonable estimates for the applicable period of measurement, there are inherent challenges in measuring usage and user engagement across our large user base around the world. Furthermore, our metrics may be impacted by our information quality efforts, which are our overall efforts to reduce malicious activity on the service, inclusive of spam, malicious automation, and fake accounts. For example, there are a number of false or spam accounts in existence on our platform. We have performed an internal review of a sample of accounts and estimate that the average of false or spam accounts during the second quarter of 2019 represented fewer than 5% of our mDAU during the quarter. The false or spam accounts for a period represents the average of false or spam accounts in the samples during each monthly analysis period during the quarter. In making this determination, we applied significant judgment, so our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our active users, and have made improvements in our spam detection capabilities that have resulted in the suspension of a large number of spam, malicious automation and fake accounts. We intend to continue to make such improvements. After we determine an account is spam, malicious automation or fake, we stop counting it in our mDAU or related metrics. We also treat multiple accounts held by a single person or organization as multiple users for purposes of calculating mDAU because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our active users may not accurately reflect the actual number of people or organizations using our platform.

In addition, our data regarding user geographic location for purposes of reporting the geographic location of our mDAU is based on the IP address or phone number associated with the account when a user initially registered the account on Twitter. The IP address or phone number may not always accurately reflect a user’s actual location at the time such user engaged with our platform. For example, someone accessing Twitter on a mobile device may appear to be accessing Twitter from the location of the proxy server that the user connects to rather than from the user’s actual location.

We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. Our measures of user growth and user engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology.

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

TWITTER, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)
(Unaudited)

	June 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 2,183,111	$ 1,894,444
Short-term investments	4,503,427	4,314,957
Accounts receivable, net of allowance for doubtful accounts of $2,285 and $3,559	719,904	788,700
Prepaid expenses and other current assets	106,341	112,935
Total current assets	7,512,783	7,111,036
Property and equipment, net	982,513	885,078
Operating lease right-of-use assets	694,855	—
Intangible assets, net	50,722	45,025
Goodwill	1,246,883	1,227,269
Deferred tax assets, net	1,954,808	808,459
Other assets	79,043	85,705
Total assets	$ 12,521,607	$ 10,162,572
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 206,282	$ 145,186
Accrued and other current liabilities	428,296	405,751
Convertible notes, short-term	923,648	897,328
Operating lease liabilities, short-term	129,919	—
Finance lease liabilities, short-term	45,593	68,046
Total current liabilities	1,733,738	1,516,311
Convertible notes, long-term	1,773,092	1,730,922
Operating lease liabilities, long-term	614,213	—
Finance lease liabilities, long-term	7,576	24,394
Deferred and other long-term tax liabilities, net	23,393	17,849
Other long-term liabilities	24,781	67,502
Total liabilities	4,176,793	3,356,978
Commitments and contingencies (Note 14)		
Stockholders' equity:		
Preferred stock, $0.000005 par value-- 200,000 shares authorized; none issued and outstanding	—	—
Common stock, $0.000005 par value-- 5,000,000 shares authorized; 772,393 and 764,257 shares issued and outstanding	4	4
Additional paid-in capital	8,535,463	8,324,974
Accumulated other comprehensive loss	(46,944)	(65,311)
Accumulated deficit	(143,709)	(1,454,073)
Total stockholders' equity	8,344,814	6,805,594
Total liabilities and stockholders' equity	$ 12,521,607	$ 10,162,572

The accompanying notes are an integral part of these consolidated financial statements.

TWITTER, INC.

CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share data)
(Unaudited)

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Revenue	$ 841,381	$ 710,541	$ 1,628,271	$ 1,375,412
Costs and expenses				
Cost of revenue	277,965	230,185	541,976	453,008
Research and development	159,242	138,574	305,488	261,920
Sales and marketing	240,249	188,032	446,048	366,091
General and administrative	88,239	74,126	165,415	139,844
Total costs and expenses	765,695	630,917	1,458,927	1,220,863
Income from operations	75,686	79,624	169,344	154,549
Interest expense	(38,317)	(29,982)	(75,577)	(56,997)
Interest income	42,887	21,960	83,428	38,141
Other income (expense), net	7,523	(5,735)	7,087	(5,944)
Income before income taxes	87,779	65,867	184,282	129,749
Provision (benefit) for income taxes	(1,031,781)	(34,250)	(1,126,082)	(31,365)
Net income	$ 1,119,560	$ 100,117	$ 1,310,364	$ 161,114
Net income per share attributable to common stockholders:				
Basic	$ 1.46	$ 0.13	$ 1.71	$ 0.21
Diluted	$ 1.43	$ 0.13	$ 1.68	$ 0.21
Weighted-average shares used to compute net income per share attributable to common stockholders:				
Basic	768,755	752,351	766,658	750,037
Diluted	785,056	772,556	781,378	769,222

The accompanying notes are an integral part of these consolidated financial statements.

TWITTER, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Net income	$ 1,119,560	$ 100,117	$ 1,310,364	$ 161,114
Other comprehensive income, net of tax:				
Change in unrealized gain (loss) on investments in available-for-sale securities	9,106	1,384	17,954	(445)
Change in foreign currency translation adjustment	615	(35,493)	413	(24,410)
Net change in accumulated other comprehensive income (loss)	9,721	(34,109)	18,367	(24,855)
Comprehensive income	$ 1,129,281	$ 66,008	$ 1,328,731	$ 136,259

The accompanying notes are an integral part of these consolidated financial statements.

TWITTER, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)
(Unaudited)

	Three Months Ended June 30,				Six Months Ended June 30,			
	2019		2018		2019		2018	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Common stock								
Balance, beginning of period	767,913	$ 4	752,037	$ 4	764,257	$ 4	746,902	$ 4
Issuance of common stock in connection with RSU vesting	3,243	—	3,086	—	7,132	—	8,184	—
Issuance of common stock in connection with acquisitions	—	—	119	—	—	—	119	—
Issuance of restricted stock in connection with acquisitions accounted for as stock-based compensation	306	—	655	—	306	—	655	—
Exercise of stock options	123	—	129	—	195	—	434	—
Issuance of common stock upon purchases under employee stock purchase plan	901	—	990	—	901	—	990	—
Shares withheld related to net share settlement of equity awards	(91)	—	(60)	—	(396)	—	(320)	—
Other activities	(2)	—	—	—	(2)	—	(8)	—
Balance, end of period	772,393	$ 4	756,956	$ 4	772,393	$ 4	756,956	$ 4
Additional paid-in capital								
Balance, beginning of period	—	$ 8,408,749	—	$ 7,831,429	—	$ 8,324,974	—	$ 7,750,522
Issuance of common stock in connection with acquisitions	—	—	—	5,405	—	—	—	5,405
Issuance of stock options in connection with acquisitions	—	—	—	917	—	—	—	917
Issuance of restricted stock in connection with acquisitions	—	—	—	12,843	—	—	—	12,843
Exercise of stock options	—	413	—	329	—	509	—	3,097
Issuance of common stock upon purchases under employee stock purchase plan	—	25,209	—	16,337	—	25,209	—	16,337
Shares withheld related to net share settlement of equity awards	—	(3,461)	—	(1,803)	—	(12,938)	—	(9,353)
Stock-based compensation	—	104,553	—	89,368	—	197,709	—	175,053
Equity component of the convertible note issuance, net	—	—	—	252,248	—	—	—	252,248
Purchase of convertible note hedge	—	—	—	(267,950)	—	—	—	(267,950)
Issuance of warrants	—	—	—	186,760	—	—	—	186,760
Other activities	—	—	—	6	—	—	—	10
Balance, end of period	—	$ 8,535,463	—	$ 8,125,889	—	$ 8,535,463	—	$ 8,125,889
Accumulated other comprehensive loss								
Balance, beginning of period	—	$ (56,665)	—	$ (22,325)	—	$ (65,311)	—	$ (31,579)
Other comprehensive	—	9,721	—	(34,109)	—	18,367	—	(24,855)

income (loss)								
Balance, end of period	—	$ (46,944)	—	$ (56,434)	—	$ (46,944)	—	$ (56,434)
Accumulated deficit								
Balance, beginning of period	—	$ (1,263,269)	—	$ (2,598,672)	—	$ (1,454,073)	—	$ (2,671,729)
Cumulative-effect adjustment from adoption of revenue recognition rule	—	—	—	—	—	—	—	12,060
Net income	—	1,119,560	—	100,117	—	1,310,364	—	161,114
Balance, end of period	—	$ (143,709)	—	$ (2,498,555)	—	$ (143,709)	—	$ (2,498,555)
Total stockholders' equity	772,393	$ 8,344,814	756,956	$ 5,570,904	772,393	$ 8,344,814	756,956	$ 5,570,904

The accompanying notes are an integral part of these consolidated financial statements.

TWITTER, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Cash flows from operating activities		
Net income	$ 1,310,364	$ 161,114
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization expense	229,090	202,828
Stock-based compensation expense	178,106	152,735
Amortization of discount on convertible notes	62,787	44,031
Deferred income taxes	(1,144,191)	(42,285)
Impairment of investments in privately-held companies	1,550	3,000
Other adjustments	(18,103)	(3,059)
Changes in assets and liabilities, net of assets acquired and liabilities assumed from acquisitions:		
Accounts receivable	67,237	46,968
Prepaid expenses and other assets	66,627	(20,302)
Accounts payable	(4,740)	(16,828)
Accrued and other liabilities	(58,061)	35,611
Net cash provided by operating activities	690,666	563,813
Cash flows from investing activities		
Purchases of property and equipment	(218,821)	(289,541)
Proceeds from sales of property and equipment	3,057	4,456
Purchases of marketable securities	(2,991,921)	(1,990,868)
Proceeds from maturities and sales of marketable securities	2,832,237	1,638,109
Business combinations, net of cash acquired	(20,302)	(32,504)
Other investing activities	11,368	(2,175)
Net cash used in investing activities	(384,382)	(672,523)
Cash flows from financing activities		
Proceeds from issuance of convertible notes	—	1,150,000
Purchases of convertible note hedges	—	(267,950)
Proceeds from issuance of warrants concurrent with note hedges	—	186,760
Debt issuance costs	—	(11,730)
Taxes paid related to net share settlement of equity awards	(12,938)	(9,360)
Payments of finance lease obligations	(37,933)	(47,282)
Proceeds from exercise of stock options	509	3,097
Proceeds from issuances of common stock under employee stock purchase plan	25,209	16,337
Net cash provided by (used in) financing activities	(25,153)	1,019,872
Net increase in cash, cash equivalents and restricted cash	281,131	911,162
Foreign exchange effect on cash, cash equivalents and restricted cash	7,002	(12,514)
Cash, cash equivalents and restricted cash at beginning of period	1,921,875	1,673,857
Cash, cash equivalents and restricted cash at end of period	$ 2,210,008	$ 2,572,505
Supplemental disclosures of non-cash investing and financing activities		
Common stock issued in connection with acquisitions	$ —	$ 19,165
Equipment purchases under finance leases	$ —	$ 16,086
Changes in accrued property and equipment purchases	$ 77,611	$ 7,554
Reconciliation of cash, cash equivalents and restricted cash as shown in the consolidated statements of cash flows		
Cash and cash equivalents	$ 2,183,111	$ 2,544,641
Restricted cash included in prepaid expenses and other current assets	1,379	2,261
Restricted cash included in other assets	25,518	25,603
Total cash, cash equivalents and restricted cash	$ 2,210,008	$ 2,572,505

The accompanying notes are an integral part of these consolidated financial statements.

TWITTER, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Description of Business and Summary of Significant Accounting Policies

Twitter, Inc. ("Twitter" or the "Company") was incorporated in Delaware in April 2007, and is headquartered in San Francisco, California. Twitter offers products and services for users, advertisers, developers and platform and data partners.

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (GAAP). The unaudited interim consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and reflect, in management's opinion, all adjustments of a normal, recurring nature that are necessary for the fair statement of the Company's financial position, results of operations and cash flows for the interim periods, but are not necessarily indicative of the results expected for the full fiscal year or any other period.

The accompanying interim consolidated financial statements and these related notes should be read in conjunction with the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

Use of Estimates

The preparation of the Company's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. Actual results could differ materially from the Company's estimates. To the extent that there are material differences between these estimates and actual results, the Company's financial condition or operating results will be affected. The Company bases its estimates on past experience and other assumptions that the Company believes are reasonable under the circumstances, and the Company evaluates these estimates on an ongoing basis.

Prior Period Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

Recent Accounting Pronouncements

Recently adopted accounting pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued a new accounting standard update on leases. The new guidance requires lessees to recognize right-of-use ("ROU") assets and lease liabilities for operating leases, initially measured at the present value of the lease payments, on the consolidated balance sheets. In addition, it requires lessees to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. The FASB has subsequently issued additional updates that allow entities to apply certain practical expedients upon transition to this new guidance. The Company adopted this guidance as of January 1, 2019 and elected to apply practical expedients permitted under the transition guidance that allow the Company to use the beginning of the period of adoption (January 1, 2019) as the date of initial application, to not separate non-lease components from lease components for lessee and lessor transactions, and to not reassess lease classification, treatment of initial direct costs, or whether an existing or expired contract contains a lease. Prior period financial statements were not recast under the new guidance. The adoption of the new lease standard resulted in the recognition of operating lease ROU assets of $737.7 million recorded in operating lease right-of-use assets and lease liabilities of $777.1 million recorded in operating lease liabilities, short-term and operating lease liabilities, long-term on the consolidated balance sheets as of January 1, 2019. In connection with the adoption of this standard, deferred rent of $53.0 million, which was previously recorded in accrued and other current liabilities and in other long-term liabilities on the consolidated balance sheets, was derecognized. Additionally, prepaid rents of $13.6 million which were previously recorded in prepaid expenses and other current assets on the consolidated balance sheets were reclassified upon adoption as a reduction to operating lease liabilities, short-term.

In March 2017, the FASB issued a new accounting standard update on shortening the premium amortization period for purchased non-contingently callable debt securities. The new guidance shortens the amortization period for the premium on purchased non-contingently callable debt securities to the earliest call date. Prior to this guidance, entities generally amortized the premium as a yield adjustment over the contractual life of the security. The Company adopted this new accounting standard as of January 1, 2019 and the adoption did not have a material impact on the Company's financial statements.

In February 2018, the FASB issued a new accounting standard update to give entities the option to reclassify tax effects stranded in accumulated other comprehensive income as a result of tax reform to retained earnings (accumulated deficit). The new guidance also requires entities to make additional disclosures, regardless of whether reclassification of tax effects is elected. The Company adopted this new accounting standard during the three months ended March 31, 2019 and did not elect the option to reclassify tax effects as a result of tax reform and as such, adoption did not have a material impact on the Company's financial statements and related disclosures.

With the exception of the standards discussed above, there have been no other recent accounting pronouncements or changes in accounting pronouncements during the six months ended June 30, 2019, as compared to the recent accounting pronouncements described in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, that are of significance or potential significance to the Company.

Note 2. Revenue

Revenue Recognition

Revenue is recognized when the control of promised goods or services is transferred to customers at an amount that reflects the consideration to which the Company expects to be entitled to in exchange for those goods or services. The Company identifies its contracts with customers and all performance obligations within those contracts. The Company then determines the transaction price and allocates the transaction price to the performance obligations within the Company's contracts with customers, recognizing revenue when, or as, the Company satisfies its performance obligations. While the majority of the Company's revenue transactions are based on standard business terms and conditions, the Company also enters into sales agreements with advertisers and data partners that sometimes involve multiple performance obligations and occasionally include non-standard terms or conditions.

Revenue by geography is based on the billing address of the customers. The following table sets forth revenue by services and revenue by geographic area (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenue by services:				
Advertising services	$ 727,123	$ 601,060	$ 1,406,589	$ 1,176,216
Data licensing and other	114,258	109,481	221,682	199,196
Total revenue	$ 841,381	$ 710,541	$ 1,628,271	$ 1,375,412

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenue by geographic area:				
United States	$ 455,201	$ 366,657	$ 887,557	$ 713,227
Japan	133,171	122,219	268,742	239,045
Rest of World	253,009	221,665	471,972	423,140
Total revenue	$ 841,381	$ 710,541	$ 1,628,271	$ 1,375,412

Contract Balances

The Company enters into contracts with its customers, which may give rise to contract liabilities (deferred revenue) and contract assets (unbilled revenue). The payment terms and conditions within the Company's contracts vary by the type and location of its customer and products or services purchased, the substantial majority of which are due in less than one year. When the timing of revenue recognition differs from the timing of payments made by customers, the Company recognizes either unbilled revenue (its performance precedes the billing date) or deferred revenue (customer payment is received in advance of performance).

Deferred Revenue (Contract Liabilities)

The Company presents deferred revenue primarily within accrued and other current liabilities in the consolidated balance sheets and there is not expected to be any material non-current contract liabilities given the Company's contracting provisions. The Company's deferred revenue balance primarily consists of cash payments due in advance of satisfying its performance obligations relating to data licensing contracts and performance obligations given to customers based on their spend relating to advertising contracts, for which the Company defers, as they represent material rights. The Company recognizes deferred revenue relating to its data licensing contracts on a straight-line basis over the period in which the Company provides data. The Company recognizes deferred revenue relating to its advertising contracts based on the amount of customer spend and the relative standalone selling price of the material rights.

Unbilled Revenue (Contract Assets)

The Company presents unbilled revenue in the consolidated balance sheets within prepaid expenses and other current assets and within other assets. The Company's contracts do not contain material financing components. The Company's unbilled revenue primarily consists of amounts that have yet to be billed under contracts with escalating fee structures. Specifically, because the Company generally recognizes revenue on a straight-line basis for data licensing arrangements with escalating fee structures, revenue recognized represents amounts to which the Company is contractually entitled; however, the revenue recognized exceeds the amounts the Company has a right to bill as of the period end, thus resulting in unbilled revenue.

The following table presents contract balances (in thousands):

	June 30, 2019	December 31, 2018
Unbilled Revenue	$ 21,009	$ 20,786
Deferred Revenue	$ 75,043	$ 38,949

The amount of revenue recognized in the three months ended June 30, 2019 that was included in the deferred revenue balance as of March 31, 2019 was $19.5 million. The amount of revenue recognized in the six months ended June 30, 2019 that was included in the deferred revenue balance as of December 31, 2018 was $38.9 million. This revenue consists primarily of revenue recognized as a result of the utilization of bonus media inventory earned by and material rights provided to customers in prior periods and the satisfaction of the Company's performance obligations relating to data licensing contracts with advance cash payments.

The amount of revenue recognized from obligations satisfied (or partially satisfied) in prior periods was not material.

The increase in unbilled revenue balance from December 31, 2018 to June 30, 2019 was primarily attributable to differences between revenue recognized and amounts billed in the Company's data licensing arrangements with escalating fee structures due to recognizing such fees as revenue on a straight-line basis.

The increase in deferred revenue balance from December 31, 2018 to June 30, 2019 was primarily due to cash payments received or due in advance of satisfying the Company's performance obligations for data licensing contracts and bonus and make good media inventory earned by and offered to customers during the period.

Remaining Performance Obligations

As of June 30, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations in contracts with an original expected duration exceeding one year is $587.2 million. This total amount primarily consists of long-term data licensing contracts and excludes deferred revenue related to the Company's short-term advertising service arrangements. The Company expects to recognize this amount as revenue over the following time periods (in thousands):

	Remaining Performance Obligations			
	Total	Remainder of 2019	2020	2021 and Thereafter
Revenue expected to be recognized on remaining performance obligations	$ 587,210	$ 125,476	$ 206,123	$ 255,611

Note 3. Cash, Cash Equivalents and Short-term Investments

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	June 30, 2019	December 31, 2018
Cash and cash equivalents:		
Cash	$ 218,525	$ 229,924
Money market funds	752,160	861,206
Corporate notes, commercial paper and certificates of deposit	1,212,426	803,314
Total cash and cash equivalents	$ 2,183,111	$ 1,894,444
Short-term investments:		
U.S. government and agency securities including treasury bills	$ 816,813	$ 1,053,408
Corporate notes, commercial paper and certificates of deposit	3,686,614	3,261,549
Total short-term investments	$ 4,503,427	$ 4,314,957

The contractual maturities of securities classified as available-for-sale as of June 30, 2019 were as follows (in thousands):

	June 30, 2019
Due within one year	$ 2,650,741
Due after one year through five years	1,852,686
Total	$ 4,503,427

The following tables summarize unrealized gains and losses related to available-for-sale securities classified as short-term investments on the Company's consolidated balance sheets (in thousands):

	June 30, 2019			
	Gross Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities including treasury bills	$ 815,128	$ 1,740	$ (55)	$ 816,813
Corporate notes, commercial paper and certificates of deposit	3,674,393	12,555	(334)	3,686,614
Total available-for-sale securities classified as short-term investments	$ 4,489,521	$ 14,295	$ (389)	$ 4,503,427

	December 31, 2018			
	Gross Amortized Costs	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities including treasury bills	$ 1,053,988	$ 41	$ (621)	$ 1,053,408
Corporate notes, commercial paper and certificates of deposit	3,265,012	713	(4,176)	3,261,549
Total available-for-sale securities classified as short-term investments	$ 4,319,000	$ 754	$ (4,797)	$ 4,314,957

The gross unrealized loss on securities in a continuous loss position for 12 months or longer was not material as of June 30, 2019 and December 31, 2018.

Investments are reviewed periodically to identify possible other-than-temporary impairments. No impairment loss has been recorded on the securities included in the tables above as the Company believes that the decrease in fair value of these securities is temporary and expects to recover the initial cost of investment for these securities.

Note 4. Fair Value Measurements

The Company measures its cash equivalents, short-term investments and derivative financial instruments at fair value. The Company classifies its cash equivalents, short-term investments and derivative financial instruments within Level 1 or Level 2 because the Company values these investments using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The fair value of the Company's Level 1 financial assets is based on quoted market prices of the identical underlying security. The fair value of the Company's Level 2 financial assets is based on inputs that are directly or indirectly observable in the market, including the readily-available pricing sources for the identical underlying security that may not be actively traded.

The following tables set forth the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis as of June 30, 2019 and December 31, 2018 based on the three-tier fair value hierarchy (in thousands):

	June 30, 2019		
	Level 1	Level 2	Total
Assets			
Cash equivalents:			
Money market funds	$ 752,160	$ —	$ 752,160
Commercial paper	—	1,212,426	1,212,426
Short-term investments:			
U.S. government and agency securities	—	816,813	816,813
Corporate notes	—	2,339,106	2,339,106
Commercial paper	—	838,578	838,578
Certificates of deposit	—	508,930	508,930
Other current assets:			
Foreign currency contracts	—	4,273	4,273
Total	$ 752,160	$ 5,720,126	$ 6,472,286
Liabilities			
Other current liabilities:			
Foreign currency contracts	—	2,024	2,024
Total	$ —	$ 2,024	$ 2,024

	December 31, 2018		
	Level 1	Level 2	Total
Assets			
Cash equivalents:			
Money market funds	$ 861,206	$ —	$ 861,206
Corporate notes	—	24,537	24,537
Commercial paper	—	778,777	778,777
Short-term investments:			
Treasury bills	—	294,128	294,128
U.S. government and agency securities	—	759,280	759,280
Corporate notes	—	1,713,835	1,713,835
Commercial paper	—	733,999	733,999
Certificates of deposit	—	813,715	813,715
Other current assets:			
Foreign currency contracts	—	1,343	1,343
Total	$ 861,206	$ 5,119,614	$ 5,980,820
Liabilities			
Other current liabilities:			
Foreign currency contracts	—	3,826	3,826
Total	$ —	$ 3,826	$ 3,826

The Company has $935.0 million in aggregate principal amount of 0.25% convertible senior notes due in 2019 (the "2019 Notes"), $954.0 million in aggregate principal amount of 1.00% convertible senior notes due in 2021 (the "2021 Notes"), and $1.15 billion in aggregate principal amount of 0.25% convertible senior notes due in 2024 (the "2024 Notes" and together with the 2019 Notes and the 2021 Notes, the "Notes") outstanding as of June 30, 2019. Refer to Note 10 – Convertible Notes for further details on the Notes.

The estimated fair value of the 2019 Notes, 2021 Notes, and 2024 Notes, based on a market approach as of June 30, 2019 was approximately $929.1 million, $914.0 million, and $1.16 billion, respectively, which represents a Level 2 valuation. The estimated fair value was determined based on the estimated or actual bids and offers of the Notes in an over-the-counter market on the last business day of the period.

Derivative Financial Instruments

The Company enters into foreign currency forward contracts with financial institutions to reduce the risk that its earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary. These contracts do not subject the Company to material balance sheet risk due to exchange rate movements because gains and losses on these derivatives are intended to offset gains and losses on the hedged foreign currency denominated assets and liabilities. These foreign currency forward contracts are not designated as hedging instruments.

The Company recognizes these derivative instruments as either assets or liabilities in the consolidated balance sheets at fair value based on a Level 2 valuation. The Company records changes in the fair value (i.e., gains or losses) of the derivatives in other income (expense), net in the consolidated statements of income. The notional principal of foreign currency contracts outstanding was equivalent to $549.4 million and $545.3 million at June 30, 2019 and December 31, 2018, respectively.

The fair values of outstanding derivative instruments for the periods presented on a gross basis are as follows (in thousands):

	Balance Sheet Location	June 30, 2019	December 31, 2018
Assets			
Foreign currency contracts not designated as hedging instruments	Other current assets	$ 4,273	$ 1,343
Liabilities			
Foreign currency contracts not designated as hedging instruments	Other current liabilities	$ 2,024	$ 3,826

The Company recognized $4.3 million and $4.9 million of net losses on its foreign currency contracts in the three and six months ended June 30, 2019, respectively. The Company recognized $3.8 million and $6.6 million of net losses on its foreign currency contracts in the three and six months ended June 30, 2018, respectively.

Note 5. Property and Equipment, Net

The following table presents the detail of property and equipment, net for the periods presented (in thousands):

	June 30, 2019	December 31, 2018
Property and equipment, net		
Equipment	$ 1,377,891	$ 1,185,270
Furniture and leasehold improvements	337,272	328,532
Capitalized software	614,433	554,962
Construction in progress	107,230	96,488
Total	2,436,826	2,165,252
Less: Accumulated depreciation and amortization	(1,454,313)	(1,280,174)
Property and equipment, net	$ 982,513	$ 885,078

Note 6. Leases

Operating and Finance Lease Policy

The Company has operating leases primarily for office space and data center facilities. The determination of whether an arrangement contains a lease is made at inception by evaluating whether the arrangement conveys the right to use an identified asset and whether the Company obtains substantially all of the economic benefits from and has the ability to direct the use of the asset. Operating leases are included in operating lease right-of-use assets, operating lease liabilities, short-term, and operating lease liabilities, long-term on the Company's consolidated balance sheets.

With the exception of initial adoption of the new lease standard, where the Company's incremental borrowing rate used was the rate on the adoption date (January 1, 2019), operating lease ROU assets and operating lease liabilities are recognized based on the present value of lease payments over the lease term at the lease commencement date. To determine the incremental borrowing rate used to calculate the present value of future lease payments, the Company uses information including the Company's credit rating, interest rates of similar debt instruments of entities with comparable credit ratings, and Twitter, Inc.'s guarantee of certain leases in foreign jurisdictions, as applicable.

Certain lease agreements contain an option for the Company to renew a lease for a term of up to seven years or an option to terminate a lease early within one year. The Company considers these options, which may be elected at the Company's sole discretion, in determining the lease term on a lease-by-lease basis. Leases with an initial term of twelve months or less are not recognized on the consolidated balance sheets. The Company recognizes lease expense for these leases on a straight-line basis over the term of the lease.

The Company also has server and networking equipment lease arrangements with original lease terms ranging from three to four years. The Company's server and networking equipment leases typically are accounted for as finance leases as they meet one or more of the five finance lease classification criteria. Assets acquired under finance leases are included in property and equipment, net, finance lease liabilities, short-term, and finance lease liabilities, long-term in the Company's consolidated balance sheets and are depreciated to operating expenses on a straight-line basis over their estimated useful lives.

The Company's lease agreements generally do not contain any material residual value guarantees or material restrictive covenants. Certain of the Company's leases contain free or escalating rent payment terms. Additionally, certain lease agreements contain lease components (for example, fixed payments such as rent) and non-lease components such as common-area maintenance costs. For each asset class of the Company's leases—real estate offices, data centers, and equipment—the Company has elected to account for both of these provisions as a single lease component. For arrangements accounted for as a single lease component, there may be variability in future lease payments as the amount of the non-lease components is typically revised from one period to the next. These variable lease payments, which are primarily comprised of common-area maintenance, utilities, and real estate taxes that are passed on from the lessor in proportion to the space leased by the Company, are recognized in operating expenses in the period in which the obligation for those payments was incurred. The Company recognizes lease expense for its operating leases in operating expenses on a straight-line basis over the term of the lease.

The Company subleases certain leased office space to third parties when it determines there is excess leased capacity. Certain of these subleases contain both lease and non-lease components. The Company has elected to account for both of these provisions as a single lease component. Sublease rent income is recognized as an offset to operating expense on a straight-line basis over the lease term. In addition to sublease rent, variable non-lease costs such as common-area maintenance, utilities, and real estate taxes are charged to subtenants over the duration of the lease for their proportionate share of these costs. These variable non-lease income receipts are recognized in operating expenses as a reduction to costs incurred by the Company in relation to the head lease.

Operating and Finance Leases

The Company's leases have remaining lease terms from less than one year up to approximately eleven years. As of June 30, 2019, assets recorded under finance leases were $196.3 million and accumulated depreciation associated with finance leases was $146.9 million, recorded in property and equipment, net on the consolidated balance sheets.

The components of lease cost for the three and six months ended June 30, 2019 were as follows (in thousands):

	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Operating lease cost	$ 41,783	$ 83,795
Finance lease cost		
Depreciation expense	17,584	36,850
Interest on lease liabilities	603	1,381
Total finance lease cost	18,187	38,231
Short-term lease cost	733	1,419
Variable lease cost	11,983	22,821
Sublease income	(6,091)	(12,125)
Total lease cost	$ 66,595	$ 134,141

Other information related to leases was as follows (in thousands):

	Six Months Ended June 30, 2019
Supplemental Cash Flows Information	
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	78,191
Operating cash flows from finance leases	1,381
Financing cash flows from finance leases	37,933
Right-of-use assets obtained in exchange for lease obligations:	
Operating leases	26,760
Finance leases	—

	June 30, 2019
Lease Term and Discount Rate	
Weighted-average remaining lease term (years):	
Operating leases	7.0
Finance leases	1.0
Weighted-average discount rate:	
Operating leases	4.5%
Finance leases	3.7%

Future lease payments under leases and sublease income as of June 30, 2019 were as follows (in thousands):

	Operating Leases	Finance Leases	Total	Sublease Income
Years Ending December 31,				
Remainder of 2019	$ 73,086	$ 29,876	$ 102,962	$ (11,851)
2020	170,727	23,845	194,572	(15,141)
2021	129,629	569	130,198	(11,759)
2022	106,720	—	106,720	(1,318)
2023	78,004	—	78,004	—
Thereafter	324,200	—	324,200	—
Total future lease payments	882,366	54,290	936,656	$ (40,069)
Less: leases not yet commenced	(5,773)	—	(5,773)	
Less: imputed interest	(132,461)	(1,121)	(133,582)	
Total lease liabilities	$ 744,132	$ 53,169	$ 797,301	
Reconciliation of lease liabilities as shown in the consolidated balance sheets				
Operating lease liabilities, short-term	$ 129,919	$ —	$ 129,919	
Operating lease liabilities, long-term	614,213	—	614,213	
Finance lease liabilities, short-term	—	45,593	45,593	
Finance lease liabilities, long-term	—	7,576	7,576	
Total lease liabilities	$ 744,132	$ 53,169	$ 797,301	

Future lease payments under leases and sublease income as of December 31, 2018 were as follows (in thousands):

	Operating Leases	Sublease Income	Finance Leases
Years Ending December 31,			
2019	$ 161,932	$ (24,312)	$ 70,506
2020	151,751	(15,144)	23,845
2021	110,853	(11,762)	569
2022	89,398	(1,319)	—
2023	62,137	—	—
Thereafter	263,441	—	—
	$ 839,512	$ (52,537)	94,920
Less: Amounts representing interest			2,480
Total finance lease obligation			92,440
Less: Short-term portion			68,046
Long-term portion			$ 24,394

Note 7. Goodwill and Intangible Assets

The following table presents the goodwill activities for the periods presented (in thousands):

Goodwill	
Balance as of December 31, 2018	$ 1,227,269
Acquisition	19,092
Other	522
Balance as of June 30, 2019	$ 1,246,883

For each of the periods presented, gross goodwill balance equaled the net balance since no impairment charges have been recorded.

The following table presents the detail of intangible assets for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
June 30, 2019:			
Patents and developed technologies	$ 107,611	$ (56,889)	$ 50,722
Advertiser relationships	9,300	(9,300)	—
Total	$ 116,911	$ (66,189)	$ 50,722
December 31, 2018:			
Patents and developed technologies	$ 93,211	$ (48,806)	$ 44,405
Publisher and advertiser relationships	9,300	(8,680)	620
Total	$ 102,511	$ (57,486)	$ 45,025

Amortization expense associated with intangible assets for the three months ended June 30, 2019 and 2018 was $3.9 million and $4.9 million, respectively, and for the six months ended June 30, 2019 and 2018 was $8.7 million and $9.8 million, respectively.

Estimated future amortization expense as of June 30, 2019 is as follows (in thousands):

Remainder of 2019	$ 7,613
2020	12,664
2021	9,801
2022	5,921
2023	5,214
Thereafter	9,509
Total	$ 50,722

Note 8. Accrued and Other Current Liabilities

The following table presents the detail of accrued and other current liabilities for the periods presented (in thousands):

	June 30, 2019	December 31, 2018
Accrued compensation	$ 122,720	$ 155,830
Accrued tax liabilities	37,067	39,729
Accrued publisher, content and ad network costs	39,607	33,014
Deferred revenue	72,946	38,949
Accrued other	155,956	138,229
Total	$ 428,296	$ 405,751

Note 9. Acquisitions and Other Investments

2019 Acquisition

During the three months ended June 30, 2019, the Company made an acquisition, which was accounted for as a business combination. The purchase price of $22.8 million (paid in cash of $20.5 million and indemnification holdback of $2.3 million) for this acquisition was allocated as follows: $4.9 million to developed technology, $1.2 million to net liabilities assumed based on their estimated fair value on the acquisition date, and the excess $19.1 million of the purchase price over the fair value of net assets acquired to goodwill. The goodwill from the acquisition is mainly attributable to assembled workforce, expected synergies and other benefits. The goodwill is not tax deductible. The developed technology will be amortized on a straight-line basis over its estimated useful life of 36 months.

The results of operations for this acquisition have been included in the Company's consolidated statements of income since the date of acquisition. Actual and pro forma revenue and results of operations for this acquisition have not been presented because they do not have a material impact on the consolidated revenue and results of operations.

Investments in Privately-Held Companies

The Company makes strategic investments in privately-held companies. The Company also evaluates each investee to determine if the investee is a variable interest entity and, if so, whether the Company is the primary beneficiary of the variable interest entity. The Company has determined, as of June 30, 2019, there were no variable interest entities required to be consolidated in the Company's consolidated financial statements. The Company's investments in privately-held companies are primarily non-marketable equity securities without readily determinable fair values. The Company adjusts the carrying value of its non-marketable equity securities to fair value upon observable transactions for identical or similar investments of the same issuer or upon impairment (referred to as the measurement alternative). All gains and losses on non-marketable equity securities, realized and unrealized, are recognized in other income (expense), net. The Company's non-marketable equity securities had a carrying value of $22.7 million and $25.8 million as of June 30, 2019 and December 31, 2018, respectively. The maximum loss the Company can incur for its investments is their carrying value. These investments in privately-held companies are included within Other Assets on the consolidated balance sheets.

The Company periodically evaluates the carrying value of the investments in privately-held companies when events and circumstances indicate that the carrying amount of the investment may not be recovered. The Company estimates the fair value of the investments to assess whether impairment losses shall be recorded using Level 3 inputs. These investments include the Company's holdings in privately-held companies that are not exchange traded and therefore not supported with observable market prices; hence, the Company may determine the fair value by reviewing equity valuation reports, current financial results, long-term plans of the privately-held companies, the amount of cash that the privately-held companies have on-hand, the ability to obtain additional financing and overall market conditions in which the privately-held companies operate or based on the price observed from the most recent completed financing. The Company recorded an impairment charge of $1.6 million in the three and six months ended June 30, 2019, and $3.0 million in the three and six months ended June 30, 2018 within other income (expense), net in the consolidated statements of income. The Company also recorded a gain of $10.2 million from the sale of an investment in a privately-held company in the three and six months ended June 30, 2019 within other income (expense), net in the consolidated statements of income. No gain was recorded in the three and six months ended June 30, 2018.

Note 10. Convertible Notes

2019, 2021, and 2024 Notes

In 2018, the Company issued $1.15 billion in aggregate principal amount of the 2024 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The total net proceeds from this offering were approximately $1.14 billion, after deducting $12.3 million of debt issuance costs in connection with the 2024 Notes. In 2014, the Company issued $935.0 million in aggregate principal amount of 2019 Notes and $954.0 million in aggregate principal amount of 2021 Notes. The total net proceeds from this offering were approximately $1.86 billion, after deducting $28.3 million of debt discount and $0.5 million debt issuance costs in connection with the 2019 Notes and the 2021 Notes. The 2019 Notes, 2021 Notes, and 2024 Notes, collectively, the Notes, represent senior unsecured obligations of the Company.

The interest rate is fixed at 0.25% per annum for the 2024 Notes and is payable semi-annually in arrears on June 15 and December 15 of each year, which commenced on December 15, 2018. The interest rates are fixed at 0.25% and 1.00% per annum for the 2019 Notes and the 2021 Notes, respectively, and are payable semi-annually in arrears on March 15 and September 15 of each year, which commenced on March 15, 2015.

The Notes consisted of the following (in thousands):

	June 30, 2019			December 31, 2018		
	2019 Notes	2021 Notes	2024 Notes	2019 Notes	2021 Notes	2024 Notes
Principal amounts:						
Principal	$ 935,000	$ 954,000	$ 1,150,000	$ 935,000	$ 954,000	$ 1,150,000
Unamortized debt discount and issuance costs (1)	(11,352)	(107,843)	(223,065)	(37,672)	(130,232)	(242,846)
Net carrying amount	$ 923,648	$ 846,157	$ 926,935	$ 897,328	$ 823,768	$ 907,154
Carrying amount of the equity component (2)	$ 222,826	$ 283,283	$ 254,981	$ 222,826	$ 283,283	$ 254,981

(1) Included in the consolidated balance sheets within convertible notes and amortized over the remaining lives of the Notes.
(2) Included in the consolidated balance sheets within additional paid-in capital.

During the three months ended June 30, 2019 and 2018, the Company recognized $34.8 million and $25.4 million, respectively, of interest expense related to the amortization of debt discount and issuance costs prior to capitalization of interest, and $3.8 million and $3.1 million, respectively, of coupon interest expense. During the six months ended June 30, 2019 and 2018, the Company recognized $68.5 million and $48.0 million, respectively, of interest expense related to the amortization of debt discount and issuance costs prior to capitalization of interest, and $7.4 million and $6.0 million, respectively, of coupon interest expense.

As of June 30, 2019, the remaining life of the 2019 Notes, 2021 Notes, and 2024 Notes is approximately 2 months, 26 months, and 59 months, respectively.

Note 11. Net Income per Share

Basic net income per share is computed by dividing net income attributable to common stockholders by the weighted-average common shares outstanding during the period. The weighted-average common shares outstanding is adjusted for shares subject to repurchase such as unvested restricted stock granted to employees in connection with acquisitions, contingently returnable shares and escrowed shares supporting indemnification obligations that are issued in connection with acquisitions and unvested stock options exercised.

Diluted net income per share is computed by dividing the net income attributable to common stockholders by the weighted-average number of common shares outstanding during the period, including potential dilutive common stock instruments.

The following table presents the calculation of basic and diluted net income per share for periods presented (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Basic net income per share:				
Numerator				
Net income	$ 1,119,560	$ 100,117	$ 1,310,364	$ 161,114
Denominator				
Weighted-average common shares outstanding	770,792	754,811	768,810	752,601
Weighted-average restricted stock subject to repurchase	(2,037)	(2,460)	(2,152)	(2,564)
Weighted-average shares used to compute basic net income per share	768,755	752,351	766,658	750,037
Basic net income per share attributable to common stockholders	$ 1.46	$ 0.13	$ 1.71	$ 0.21
Diluted net income per share:				
Numerator				
Net income	$ 1,119,560	$ 100,117	$ 1,310,364	$ 161,114
Denominator				
Number of shares used in basic computation	768,755	752,351	766,658	750,037
Weighted-average effect of dilutive securities:				
RSUs	11,767	15,178	10,548	14,283
Stock options	2,577	2,717	2,530	2,736
Other	1,957	2,310	1,642	2,166
Weighted-average shares used to compute diluted net income per share	785,056	772,556	781,378	769,222
Diluted net income per share attributable to common stockholders	$ 1.43	$ 0.13	$ 1.68	$ 0.21

The following numbers of potential common shares at the end of each period were excluded from the calculation of diluted net income per share attributable to common stockholders because their effect would have been anti-dilutive for the periods presented (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
RSUs	2,676	3,304	12,379	12,389
Warrants	44,454	44,454	44,454	44,454
Stock options	3	—	6	800
Shares subject to repurchase and others	3,549	844	3,582	907

Since the Company expects to settle the principal amount of the outstanding Notes in cash, the Company uses the treasury stock method for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. For the 2019 Notes and 2021 Notes, the conversion spread of 24.3 million shares will have a dilutive impact on diluted net income per share of common stock when the average market price of the Company's common stock for a given period exceeds the conversion price of $77.64 per share. For the 2024 Notes, the conversion spread of 20.1 million shares will have a dilutive impact on diluted net income per share of common stock when the average market price of the Company's common stock for a given period exceeds the conversion price of $57.14 per share.

If the average market price of the common stock exceeds the exercise price of the warrants, $105.28 for the 2019 Notes and 2021 Notes, and $80.20 for the 2024 Notes, the warrants will have a dilutive effect on the earnings per share assuming that the Company is profitable. Since the average market price of the common stock is below $80.20 for all periods presented, the warrants are anti-dilutive.

Note 12. Stockholders' Equity

Equity Incentive Plans

The Company's 2013 Equity Incentive Plan serves as the successor to the 2007 Equity Incentive Plan. The number of shares of the Company's common stock available for issuance under the 2013 Equity Incentive Plan were and will be increased on the first day of each fiscal year beginning with the 2014 fiscal year, in an amount equal to the least of (i) 60,000,000 shares, (ii) 5% of the outstanding shares on the last day of the immediately preceding fiscal year or (iii) such number of shares determined by the Company's Board of Directors.

Employee Stock Purchase Plan

The number of shares available for sale under the ESPP were and will be increased on the first day of each fiscal year beginning with the 2014 fiscal year, in an amount equal to the least of (i) 11.3 million shares, (ii) 1% of the outstanding shares of the Company's common stock as of the last day of the immediately preceding fiscal year or (iii) such other amount as determined by the Company's Board of Directors.

During the six months ended June 30, 2019, employees purchased an aggregate of 0.9 million shares under the ESPP at a weighted-average price of $27.96 per share. During the six months ended June 30, 2018, employees purchased an aggregate of 1.0 million shares under the ESPP at a weighted-average price of $16.51 per share.

Restricted Common Stock

The Company has granted restricted common stock to certain continuing employees in connection with certain of its acquisitions. Vesting of this stock is dependent on the respective employee's continued employment at the Company during the requisite service period, which is generally up to four years from the issuance date, and the Company has the right to repurchase the unvested shares upon termination of employment. The fair value of the restricted common stock issued to employees is recorded as compensation expense on a straight-line basis over the requisite service period.

During the six months ended June 30, 2019, the Company granted 0.3 million shares of restricted common stock with a weighted-average grant date fair value of $36.44 per share in connection with an acquisition. The Company had 1.8 million and 2.2 million shares of unvested restricted common stock as of June 30, 2019 and December 31, 2018, respectively. The Company's restricted common stock activity was not material during the six months ended June 30, 2019.

Stock Option Activity

The Company had 3.5 million and 3.7 million shares of stock options outstanding as of June 30, 2019 and December 31, 2018, respectively. The Company's stock option activity was not material during the six months ended June 30, 2019.

Performance Restricted Stock Units Activity

The Company grants restricted stock units to certain of its executive officers periodically that vest based on the Company's attainment of the annual financial performance goals and the executives' continued employment through the vesting date, approximately one year (PRSUs). These PRSUs are granted when the annual performance targets are set and the awards are approved by the Compensation Committee of the Board of Directors, generally in the first quarter of each financial year.

The following table summarizes the activity related to the Company's PRSUs for the six months ended June 30, 2019 (in thousands, except per share data):

	PRSUs Outstanding	
	Shares	**Weighted-Average Grant-Date Fair Value Per Share**
Unvested and outstanding at December 31, 2018	390	$ 35.55
Granted (100% target level)	646	$ 31.52
Additional earned performance shares related to 2018 grants	362	$ 35.55
Vested (193% target level)	(752)	$ 35.55
Unvested and outstanding at June 30, 2019	646	$ 31.52

The total fair value of PRSUs vested during the six months ended June 30, 2019 was $23.2 million.

The Company also grants restricted stock units to certain of its executive officers that vest based on Twitter stock price performance relative to a broad-market index over a performance period of two calendar years and the executives' continued employment through the vesting date (TSR RSUs).

The following table summarizes the activity related to the Company's TSR RSUs for the six months ended June 30, 2019 (in thousands, except per share data):

	TSR RSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2018	420	$ 45.78
Granted (100% target level)	431	$ 30.60
Additional earned performance shares related to 2018 grants	30	$ 13.02
Vested (132% target level)	(122)	$ 13.02
Unvested and outstanding at June 30, 2019	759	$ 41.15

The total fair value of TSR RSUs vested during the six months ended June 30, 2019 was $3.7 million.

In addition, there are 0.4 million additional PRSUs and TSR RSUs at the 100% target level that will vest based on performance goals and Total Shareholder Return (TSR) targets to be granted in 2020 at target levels from 0% to 200%.

RSU Activity

The following table summarizes the activity related to the Company's RSUs, excluding PRSUs and TSR RSUs, for the six months ended June 30, 2019. For purposes of this table, vested RSUs represent the shares for which the service condition had been fulfilled as of each respective date (in thousands, except per share data):

	RSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2018	30,387	$ 24.97
Granted	11,760	$ 31.93
Vested	(6,258)	$ 24.51
Canceled	(1,482)	$ 24.44
Unvested and outstanding at June 30, 2019	34,407	$ 27.46

The total fair value of RSUs vested during the three months ended June 30 2019 and 2018 was $122.9 million and $95.2 million, respectively. The total fair value of RSUs vested during the six months ended June 30, 2019 and 2018 was $219.4 million and $212.1 million, respectively.

Stock-Based Compensation Expense

Stock-based compensation expense is allocated based on the cost center to which the award holder belongs. Total stock-based compensation expense by function is as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Cost of revenue	$ 5,973	$ 3,338	$ 11,021	$ 8,137
Research and development	50,229	45,069	96,490	87,015
Sales and marketing	22,202	18,225	40,267	33,047
General and administrative	16,211	12,837	30,328	24,536
Total stock-based compensation expense	$ 94,615	$ 79,469	$ 178,106	$ 152,735

The Company capitalized $9.9 million and $10.4 million of stock-based compensation expense associated with the cost for developing software for internal use in the three months ended June 30, 2019 and 2018, respectively, and $19.6 million and $22.8 million in the six months ended June 30, 2019 and 2018, respectively.

As of June 30, 2019, there was $914.0 million of gross unamortized stock-based compensation expense related to unvested awards which is expected to be recognized over a weighted-average period of 2.9 years. The Company accounts for forfeitures as they occur.

Note 13. Income Taxes

The Company's tax provision or benefit from income taxes for interim periods is determined using an estimate of its annual effective tax rate, adjusted for discrete items, if any. Each quarter the Company updates its estimate of the annual effective tax rate and makes a year-to-date adjustment to the provision.

The Company recorded a net income tax benefit of $1.03 billion and $1.13 billion for the three and six months ended June 30, 2019, respectively. The Company transferred certain intangible assets among its wholly-owned subsidiaries to align its structure to its evolving operations, which resulted in the establishment of deferred tax assets and the recognition of a deferred tax benefit from income taxes. For the three and six months ended June 30, 2019, the net income tax benefits from the intra-entity transfer of certain intangible assets were $1.08 billion and $1.21 billion, respectively, and were offset by income tax provisions of $50.7 million and $80.8 million, respectively. The Company recorded a benefit from income taxes of $34.3 million and $31.4 million for the three and six months ended June 30, 2018, respectively. The primary difference between the effective tax rate and the federal statutory tax rate relates to the deferred tax asset establishment, changes in uncertain tax positions, tax deductions for stock-based compensation, and foreign tax rate differences.

During the three and six months ended June 30, 2019, the amount of gross unrecognized tax benefits increased by $41.1 million and $60.0 million, respectively. As of June 30, 2019, the Company has $392.4 million of unrecognized tax benefits, of which $325.4 million could result in a reduction of the Company's effective tax rate, if recognized. The remainder of the unrecognized tax benefits would not affect the effective tax rate due to the full valuation allowance recorded for California and Massachusetts deferred tax assets.

The Company is subject to taxation in the United States and various state and foreign jurisdictions. The material jurisdictions in which the Company is subject to potential examination by taxing authorities include the United States, California and Ireland. The Company is currently under examination in California for tax years 2014 through 2015. The Company believes that adequate amounts have been reserved in these jurisdictions.

On June 7, 2019, the Ninth Circuit Court of Appeals issued a new opinion in the case of Altera Corp. v. Commissioner, which upheld Department of Treasury regulations which require related parties in an intercompany cost-sharing arrangement to share expenses related to stock-based compensation. The Company has evaluated the court's ruling and has recorded an increase in the tax provision of $80.0 million in the three months ended June 30, 2019 related to changes in uncertain tax positions and deferred tax assets related to the intra-entity transfer of an intangible asset in the three months ended March 31, 2019. On July 22, 2019, Altera Corp. filed a petition for a rehearing before the full Ninth Circuit. The Company will continue to monitor future developments in this case to determine if there will be further impacts to its consolidated financial statements.

Note 14. Commitments and Contingencies

Credit Facility

The Company has a revolving credit agreement with certain lenders, which provides for a $500.0 million unsecured revolving credit facility maturing on August 7, 2023. The Company is obligated to pay interest on loans under the credit facility and other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. The interest rate for the credit facility is determined based on calculations using certain market rates as set forth in the credit agreement. As of June 30, 2019, no amounts had been drawn under the credit facility.

Contractual Obligations

Our principal commitments consist of obligations under the Notes (including principal and coupon interest), operating and finance leases for equipment, office space and co-located data center facilities, as well as non-cancellable contractual commitments. The following table summarizes our commitments to settle contractual obligations in cash as of June 30, 2019:

	Payments Due by Year				
	Total	Remainder of 2019	2020-2021	2022-2023	Thereafter
			(In thousands)		
2019 Notes	$ 936,178	$ 936,178	$ —	$ —	$ —
2021 Notes	977,915	4,809	973,106	—	—
2024 Notes	1,164,352	1,438	5,742	5,734	1,151,438
Operating lease obligations (1)	882,366	73,086	300,356	184,724	324,200
Finance lease obligations	54,290	29,876	24,414	—	—
Other contractual commitments (2)	435,222	57,302	215,272	151,103	11,545
Total contractual obligations	$ 4,450,323	$ 1,102,689	$ 1,518,890	$ 341,561	$ 1,487,183

(1) The Company entered into several sublease agreements for office space that it is not fully utilizing. Under the sublease agreements, the Company is entitled to receive approximately $40.1 million in sublease income over the next four years.

(2) Other contractual commitments are non-cancelable contractual commitments primarily related to the Company's infrastructure services, bandwidth and other services arrangements.

Legal Proceedings

Beginning in September 2016, multiple putative class actions and derivative actions were filed in state and federal courts in the United States against Twitter, Twitter's directors, and/or certain former officers alleging that false and misleading statements, made in 2015, are in violation of securities laws and breached fiduciary duty. The putative class actions were consolidated in the U.S. District Court for the Northern District of California. On October 16, 2017, the court granted in part and denied in part the Company's motion to dismiss. On July 17, 2018, the court granted plaintiffs' motion for class certification in the consolidated securities action. The Company disputes the claims and intends to continue to defend the lawsuits vigorously.

The Company is also currently involved in, and may in the future be involved in, legal proceedings, claims, investigations, and government inquiries arising in the ordinary course of business. These proceedings, which include both individual and class action litigation and administrative proceedings, have included, but are not limited to matters involving content on the platform, intellectual property, privacy, securities, employment and contractual rights. Legal fees and other costs associated with such actions are expensed as incurred. The Company assesses, in conjunction with its legal counsel, the need to record a liability for litigation and contingencies. Litigation accruals are recorded when and if it is determined that a loss related matter is both probable and reasonably estimable. Material loss contingencies that are reasonably possible of occurrence, if any, are subject to disclosure. As of June 30, 2019, except for the above referenced class actions and derivative actions, there was no litigation or contingency with at least a reasonable possibility of a material loss. No material losses have been recorded during the three and six months ended June 30, 2019 and 2018 with respect to litigation or loss contingencies.

Non-Income Taxes

The Company is under audit by various domestic and foreign tax authorities and currently involved in a number of tax disputes related to non-income tax matters. The subject matter of non-income tax audits primarily arises from disputes on the tax treatment and tax rate applied to the sale of the Company's products and services in these jurisdictions and the tax treatment of certain employee benefits. The Company accrues non-income taxes that may result from examinations by, or any negotiated agreements with, these tax authorities when a loss is probable and reasonably estimable. If the Company determines that a loss is reasonably possible and the loss or range of loss can be estimated, it discloses the reasonably possible loss or range of loss. The Company believes these matters are without merit and it is defending itself vigorously. Due to the inherent complexity and uncertainty of these matters and judicial process in certain jurisdictions, the final outcome may be materially different from the Company's expectations.

Indemnification

In the ordinary course of business, the Company often includes standard indemnification provisions in its arrangements with its customers, partners, suppliers and vendors. Pursuant to these provisions, the Company may be obligated to indemnify such parties for losses or claims suffered or incurred in connection with its service, breach of representations or covenants, intellectual property infringement or other claims made against such parties. These provisions may limit the time within which an indemnification claim can be made. It is not possible to determine the maximum potential amount under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. The Company has never incurred significant expense defending its licensees against third-party claims, nor has it ever incurred significant expense under its standard service warranties or arrangements with its customers, partners, suppliers and vendors. Accordingly, the Company had no liabilities recorded for these provisions as of June 30, 2019 and December 31, 2018.

Note 15. Geographical Information

Revenue

See Note 2 – Revenue for further details.

Property and Equipment, net

The following table sets forth property and equipment, net by geographic area (in thousands):

	June 30, 2019	December 31, 2018
Property and equipment, net:		
United States	$ 951,650	$ 853,731
International	30,863	31,347
Total property and equipment, net	$ 982,513	$ 885,078

Note 16. Related Party Transactions

The Company has a partnership agreement for no consideration with Square, Inc., for which Jack Dorsey (the Company's Chief Executive Officer) serves as Chief Executive Officer, to enable U.S. political donations through Tweets. Neither Square, Inc. nor the Company will pay each other any amounts in connection with the agreement. The agreement has no impact on the Company's financial statements.

Certain of the Company's directors have affiliations with customers of the Company. The Company recognized revenue under contractual obligations from such customers of $5.5 million and $6.8 million for the three months ended June 30, 2019 and 2018, respectively, and $11.0 million and $13.7 million for the six months ended June 30, 2019 and 2018, respectively. The Company had outstanding receivable balances of $3.8 million from such customers as of June 30, 2019 and December 31, 2018.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes thereto included in Item 1 "Financial Statements" in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section titled "Risk Factors" included elsewhere in this Quarterly Report on Form 10-Q.

Overview and Highlights of Quarterly Results

Revenue in the second quarter of 2019 totaled $841.4 million, an increase of 18% compared to $710.5 million in the second quarter of 2018. On a constant currency basis, total revenue would have been $14.0 million higher, or an increase of 20% year-over-year.

- Advertising revenue totaled $727.1 million, an increase of 21% year-over-year, or 23% on a constant currency basis.
- Data licensing and other revenue totaled $114.3 million, an increase of 4% year-over-year.
- U.S. revenue totaled $455.2 million, an increase of 24% year-over-year.
- International revenue totaled $386.2 million, an increase of 12% year-over-year, or 16% on a constant currency basis.

Net income was $1.12 billion, inclusive of a $1.08 billion benefit from income taxes related to the establishment of a deferred tax asset for corporate structuring for certain geographies.

Income from operations was $75.7 million, or 9% of total revenue, for the three months ended June 30, 2019, compared to $79.6 million, or 11% of total revenue, for the three months ended June 30, 2018.

Cash, cash equivalents and short-term investments in marketable securities totaled $6.69 billion as of June 30, 2019.

Average monetizable daily active usage (mDAU) for the three months ended June 30, 2019 was 139 million, an increase of 14% year-over-year.

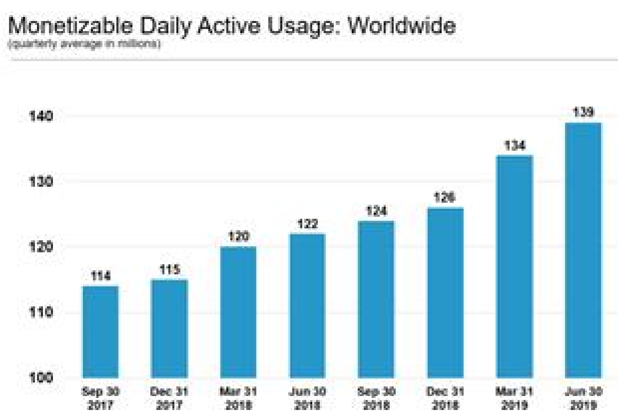
Key Metrics

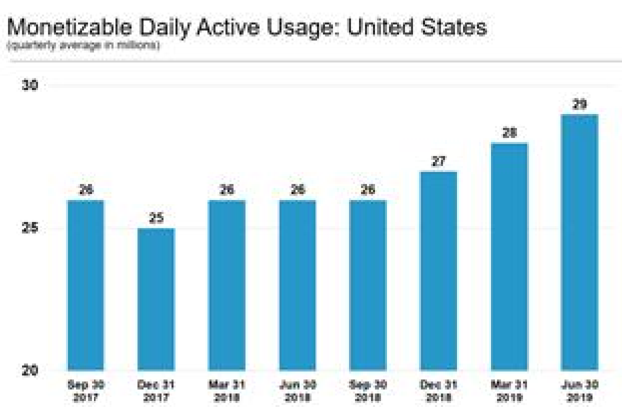
We review a number of metrics, including the following key metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions. We believe that mDAU, and its related growth, are the best ways to measure our success against our objectives and to show the size of our audience and engagement.

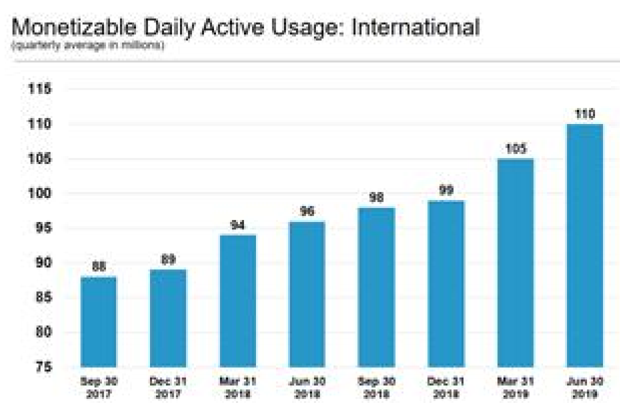
Monetizable Daily Active Usage (mDAU). We define mDAU as Twitter users who logged in and accessed Twitter on any given day through twitter.com or applications that are able to show ads. Our definition and calculation of mDAU is the same as that of the DAU data presented since the first quarter of 2016. Additionally, our calculation of mDAU is not based on any standardized industry methodology and is not necessarily calculated in the same manner or comparable to similarly-titled measures presented by other companies. Average mDAU for a period represents the number of mDAU on each day of such period divided by the number of days for such period. Changes in mDAU are a measure of changes in the size of our daily logged in active user base. To calculate the year-over-year change in mDAU, we subtract the average mDAU for the three months ended in the previous year from the average mDAU for the same three months ended in the current year and divide the result by the average mDAU for the three months ended in the previous year.

In the three months ended June 30, 2019, we had 139 million average mDAU, which represents an increase of 14% from the three months ended June 30, 2018. The increase was driven by organic growth, product improvements, and to a lesser extent, marketing. In the three months ended June 30, 2019, we had 29 million average mDAU in the United States and 110 million average mDAU in the rest of the world, which represent increases of 10% and 15%, respectively, from the three months ended June 30, 2018.

For additional information on how we calculate changes in mDAU and factors that can affect this metric, see the section titled "Note Regarding Key Metrics."

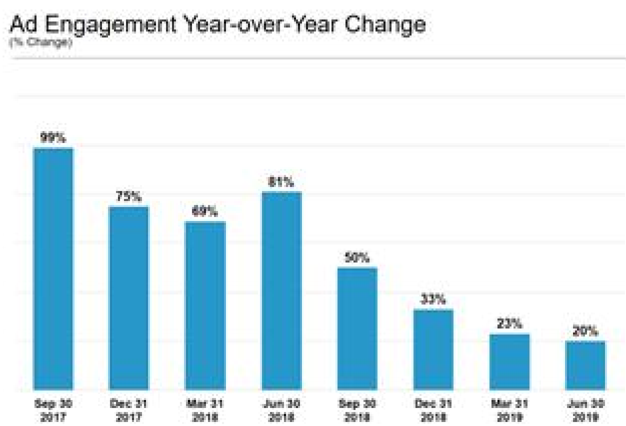


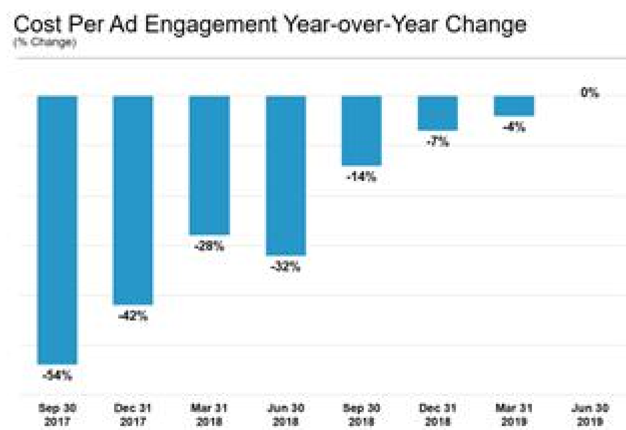




Changes in Ad Engagements and Changes in Cost per Ad Engagement. We define an ad engagement as an interaction with one of our pay-for-performance advertising products. Ad engagements with our advertising products are based on the completion of an objective set out by an advertiser such as expanding, Retweeting, liking or replying to a Promoted Tweet, viewing an embedded video, downloading or engaging with a promoted mobile application, clicking on a website link, signing up for marketing emails from advertisers, following the account that Tweets a Promoted Tweet, or completing a transaction on an external website. We believe changes in ad engagements is one way to measure user engagement with our advertising products. We believe changes in cost per ad engagement is one way to measure demand.

In the three months ended June 30, 2019, ad engagements increased 20% from the three months ended June 30, 2018. The increase was driven by increased usage and improved clickthrough rates across most ad formats. In the three months ended June 30, 2019, cost per ad engagement remained flat compared to the three months ended June 30, 2018, reflecting a mix shift toward higher value ad formats offset by improved clickthrough rates across most ad formats and, to a lesser extent, a mix shift toward video ad formats (which have lower cost per ad engagement and higher clickthrough rates).





Non-GAAP Financial Measures

To supplement our consolidated financial statements presented in accordance with generally accepted accounting principles in the United States, or GAAP, we consider certain financial measures that are not prepared in accordance with GAAP, including revenue excluding foreign exchange effect, advertising revenue excluding foreign exchange effect, and international revenue excluding foreign exchange effect. These non-GAAP financial measures are not based on any standardized methodology prescribed by GAAP and are not necessarily comparable to similarly-titled measures presented by other companies.

Revenue Measures Excluding the Impact of Changes in Foreign Exchange Rates (Constant Currency)

In order to present revenue, advertising revenue, and international revenue excluding the impact of changes in foreign exchange rates for the three and six months ended June 30, 2019, we translated the applicable measure using the prior year's monthly exchange rates for our settlement currencies other than the U.S. dollar, which is also referred to as constant currency.

We use non-GAAP financial measures of revenue excluding foreign exchange effect, advertising revenue excluding foreign exchange effect, and international revenue excluding foreign exchange effect in evaluating our operating results and for financial and operational decision-making purposes. We believe that revenue excluding foreign exchange effect, advertising revenue excluding foreign exchange effect, and international revenue excluding foreign exchange effect provide useful information about our operating results, enhance the overall understanding of our past performance and future prospects and allow for greater transparency with respect to key metrics used by our management in its financial and operational decision-making. We also use these measures to establish budgets and operational goals for managing our business and evaluating our performance.

Results of Operations

The following tables set forth our consolidated statements of income data for each of the periods presented (in thousands):

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Revenue				
Advertising services	$ 727,123	$ 601,060	$ 1,406,589	$ 1,176,216
Data licensing and other	114,258	109,481	221,682	199,196
Total revenue	841,381	710,541	1,628,271	1,375,412
Costs and expenses (1)				
Cost of revenue	277,965	230,185	541,976	453,008
Research and development	159,242	138,574	305,488	261,920
Sales and marketing	240,249	188,032	446,048	366,091
General and administrative	88,239	74,126	165,415	139,844
Total costs and expenses	765,695	630,917	1,458,927	1,220,863
Income from operations	75,686	79,624	169,344	154,549
Interest expense	(38,317)	(29,982)	(75,577)	(56,997)
Interest income	42,887	21,960	83,428	38,141
Other income (expense), net	7,523	(5,735)	7,087	(5,944)
Income before income taxes	87,779	65,867	184,282	129,749
Provision (benefit) for income taxes	(1,031,781)	(34,250)	(1,126,082)	(31,365)
Net income	$ 1,119,560	$ 100,117	$ 1,310,364	$ 161,114

(1) Costs and expenses include stock-based compensation expense as follows (in thousands):

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Cost of revenue	$ 5,973	$ 3,338	$ 11,021	$ 8,137
Research and development	50,229	45,069	96,490	87,015
Sales and marketing	22,202	18,225	40,267	33,047
General and administrative	16,211	12,837	30,328	24,536
Total stock-based compensation expense	$ 94,615	$ 79,469	$ 178,106	$ 152,735

The following table sets forth our consolidated statements of income data for each of the periods presented as a percentage of revenue:

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Revenue				
Advertising services	86%	85%	86%	86%
Data licensing and other	14	15	14	14
Total revenue	100	100	100	100
Costs and expenses				
Cost of revenue	33	32	33	33
Research and development	19	20	19	19
Sales and marketing	29	26	27	27
General and administrative	10	10	10	10
Total costs and expenses	91	89	90	89
Income from operations	9	11	10	11
Interest expense	(5)	(4)	(5)	(4)
Interest income	5	3	5	3
Other income (expense), net	1	(1)	0	(0)
Income before income taxes	10	9	11	9
Provision (benefit) for income taxes	(123)	(5)	(69)	(2)
Net income	133%	14%	80%	12%

Revenue

We generate the substantial majority of our revenue from the sale of advertising services. We also generate revenue by licensing our data to third parties and providing mobile advertising exchange services.

Advertising Services

We generate most of our advertising revenue by selling our Promoted Products. Currently, our Promoted Products consist of the following:

- *Promoted Tweets*. Promoted Tweets, which are labeled as "promoted," appear within a timeline, search results or profile pages just like an ordinary Tweet regardless of device, whether it be desktop or mobile. Using our proprietary algorithms and understanding of the interests of each account, we can deliver Promoted Tweets that are intended to be relevant to a particular account. We enable our advertisers to target an audience based on an account's Interest Graphs. Our Promoted Tweets are pay-for-performance or pay-for-impression delivered advertising that are priced through an auction. Our Promoted Tweets include objective-based features that allow advertisers to pay only for the types of engagement selected by the advertisers, such as Tweet engagements (e.g., Retweets, replies and likes), website clicks, mobile application installs or engagements, obtaining new followers, or video views.
- *Promoted Accounts*. Promoted Accounts, which are labeled as "promoted," provide a way for our advertisers to grow a community of people who are interested in their business, products or services. Our Promoted Accounts are pay-for-performance advertising that is priced through an auction.
- *Promoted Trends*. Promoted Trends, which are labeled as "promoted," appear at the top of the list of trending topics or timeline for an entire day in a particular country or on a global basis. We sell our Promoted Trends on a fixed-fee-per-day basis.

While the majority of the Promoted Products we sell to our advertisers are placed on Twitter, we also generate advertising revenue by placing advertising products that we sell to advertisers on third-party publishers' websites, applications or other offerings.

Data Licensing and Other

We generate data licensing and other revenue by (i) offering data products and data licenses that allow our data partners to access, search and analyze historical and real-time data on our platform (which consists of public Tweets and their content), and (ii) providing mobile advertising exchange services through our MoPub exchange. Our data partners generally purchase licenses to access all or a portion of our data for a fixed period. We recognize data licensing revenue as our data partners consume and benefit from their use of the licensed data. In addition, we operate a mobile ad exchange and receive service fees from transactions completed on the exchange. Our mobile ad exchange enables buyers and sellers to purchase and sell advertising inventory and matches buyers and sellers. We have determined we are not the principal as it relates to the purchase and sale of advertising inventory in transactions between third-party buyers and sellers on the exchange. Therefore, we report revenue related to our ad exchange services on a net basis.

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	% Change	2019	2018	% Change
	(in thousands)			(in thousands)		
Advertising services	$ 727,123	$ 601,060	21%	$ 1,406,589	$ 1,176,216	20%
Data licensing and other	114,258	109,481	4%	221,682	199,196	11%
Total revenue	$ 841,381	$ 710,541	18%	$ 1,628,271	$ 1,375,412	18%

Revenue in the three and six months ended June 30, 2019 increased by $130.8 million or 18% and $252.9 million or 18%, respectively, compared to the three and six months ended June 30, 2018. On a constant currency basis, revenue in the three and six months ended June 30, 2019 would have increased by $144.8 million or 20% and $277.9 million or 20%, respectively, compared to the three and six months ended June 30, 2018, respectively.

In the three and six months ended June 30, 2019, advertising revenue increased by $126.1 million or 21% and $230.4 million or 20%, respectively, compared to the three and six months ended June 30, 2018. On a constant currency basis, advertising revenue in the three and six months ended June 30, 2019 would have increased by $140.0 million or 23% and $255.4 million or 22% compared to the three and six months ended June 30, 2018, respectively.

The increase in advertising revenue in the three months ended June 30, 2019 was primarily attributable to a 20% increase in the number of ad engagements compared to the same period in 2018, driven by increased usage and improved clickthrough rates across most ad formats. Cost per ad engagement in the three months ended June 30, 2019 was flat compared to the same period in 2018, reflecting a mix shift toward higher value ad formats offset by improved clickthrough rates across most ad formats and, to a lesser extent, a mix shift toward video ad formats (which have lower cost per ad engagement and higher clickthrough rates).

The increase in advertising revenue in the six months ended June 30, 2019 was primarily attributable to a 22% increase in ad engagements compared to the same period in 2018, driven by increased usage and improved clickthrough rates across most ad formats, offset by a 2% decrease in cost per ad engagement in the six months ended June 30, 2019 compared to the same period in 2018, which was driven by like-for-like price decreases across most ad formats due to improved clickthrough rates, which results in advertisers realizing the same number of engagements (or more) at a lower (or similar) price, and to a lesser extent a mix shift towards video ad formats that have lower cost per ad engagement and higher clickthrough rates.

Advertising revenue continued to be driven by sales momentum with advertisers, built around our differentiated ad formats, better relevance, and improved ROI. As our mDAU and the level of engagement of our mDAU grows, we believe the potential to increase our revenue grows. However, in the near term we expect our year-over-year revenue growth rates to be impacted by our decision to deprecate certain smaller legacy ad formats in order to better serve our customers and drive greater focus in revenue product.

In the three and six months ended June 30, 2019, data licensing and other revenue increased by 4% and 11% compared to the three and six months ended June 30, 2018, respectively. A majority of the increase was attributable to expanded and new partnerships since the first quarter of 2018.

Looking ahead, we expect quarterly variability in year-over-year growth rates for data licensing and other revenue given various factors including the timing and size of new data enterprise solutions contracts and renewals, as compared to the same period in the prior year. On a full-year basis, we expect year-over-year data licensing and other revenue growth to moderate as we have largely worked through our multi-year enterprise renewal cycle. Quarterly revenue from our ad exchange services remains steady, and we expect it to stay at similar absolute levels over the next several quarters.

Cost of Revenue

Cost of revenue includes infrastructure costs, other direct costs including content costs, amortization of acquired intangible assets and amortization of capitalized labor costs for internally developed software, allocated facilities costs, as well as traffic acquisition costs, or TAC. Infrastructure costs consist primarily of data center costs related to our co-located facilities, which include lease and hosting costs, related support and maintenance costs and energy and bandwidth costs; as well as depreciation of servers and networking equipment; and personnel-related costs, including salaries, benefits and stock-based compensation, for our operations teams. TAC consists of costs we incur with third parties in connection with the sale to advertisers of our advertising products that we place on third-party publishers' websites, applications or other offerings collectively resulting from acquisitions, and from our organically-built advertising network, Twitter Audience Platform. Certain of the elements of our cost of revenue are fixed and cannot be reduced in the near term.

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018		2019	2018	
	(in thousands)			(in thousands)		
Cost of revenue	$ 277,965	$ 230,185	21%	$ 541,976	$ 453,008	20%
Cost of revenue as a percentage of revenue	33%	32%		33%	33%	

In the three months ended June 30, 2019, cost of revenue increased by $47.8 million compared to the three months ended June 30, 2018. The increase was attributable to a $37.0 million increase in direct costs, primarily driven by an increase in content costs, and an $10.8 million increase in depreciation expense primarily related to additional internally developed software, server and networking equipment.

In the six months ended June 30, 2019, cost of revenue increased by $89.0 million compared to the six months ended June 30, 2018. The increase was attributable to a $59.6 million increase in direct costs, primarily driven by an increase in content costs, and a $29.4 million increase in depreciation expense primarily related to additional internally developed software, server and networking equipment.

We plan to continue to scale the capacity and enhance the capability and reliability of our infrastructure to support mDAU growth and increased activity on our platform. We expect that cost of revenue will increase in absolute dollar amounts and vary as a percentage of revenue.

Research and Development

Research and development expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our engineers and other employees engaged in the research and development of our products and services. In addition, research and development expenses include amortization of acquired intangible assets, allocated facilities costs, and other supporting overhead costs.

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018		2019	2018	
	(in thousands)			(in thousands)		
Research and development	$ 159,242	$ 138,574	15%	$ 305,488	$ 261,920	17%
Research and development as a percentage of revenue	19%	20%		19%	19%	

In the three months ended June 30, 2019, research and development expenses increased by $20.7 million compared to the three months ended June 30, 2018. The increase was attributable to a $17.0 million increase in personnel-related costs mainly driven by an increase in employee headcount, and a $4.8 million net increase in allocated facilities costs and other supporting overhead expenses. These increases were offset by a $1.1 million increase in the capitalization of costs associated with developing software for internal use.

In the six months ended June 30, 2019, research and development expenses increased by $43.6 million compared to the six months ended June 30, 2018. The increase was attributable to a $32.2 million increase in personnel-related costs mainly driven by an increase in employee headcount, and a $15.0 million net increase in allocated facilities costs and other supporting overhead expenses. These increases were offset by a $3.6 million increase in the capitalization of costs associated with developing software for internal use.

We plan to continue to invest in key areas of our business to ensure that we have the right level of engineering, product management and design personnel and related resources to support our research and development efforts. We expect that research and development costs will increase in absolute dollar amounts and vary as a percentage of revenue.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related costs, including salaries, commissions, benefits and stock-based compensation for our employees engaged in sales, sales support, business development and media, marketing, corporate communications and customer service functions. In addition, marketing and sales-related expenses also include advertising costs, market research, trade shows, branding, marketing, public relations costs, amortization of acquired intangible assets, allocated facilities costs, and other supporting overhead costs.

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018		2019	2018	
	(in thousands)			(in thousands)		
Sales and marketing	$ 240,249	$ 188,032	28%	$ 446,048	$ 366,091	22%
Sales and marketing as a percentage of revenue	29%	26%		27%	27%	

In the three months ended June 30, 2019, sales and marketing expenses increased by $52.2 million compared to the three months ended June 30, 2018. The increase was attributable to a $25.4 million increase in personnel-related costs mainly driven by an increase in employee headcount, a $14.3 million increase in marketing and sales-related expenses, and a $12.5 million net increase in allocated facilities costs and other supporting overhead expenses.

In the six months ended June 30, 2019, sales and marketing expenses increased by $80.0 million compared to the six months ended June 30, 2018. The increase was attributable to a $40.0 million increase in personnel-related costs mainly driven by an increase in employee headcount, a $23.2 million net increase in allocated facilities costs and other supporting overhead expenses, and a $16.8 million increase in marketing and sales-related expenses.

We continue to evaluate key areas in our business to ensure we have the right level of sales and marketing to execute on our key priorities and objectives. We expect that sales and marketing costs will increase in absolute dollar amounts and vary as a percentage of revenue.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our executive, finance, legal, information technology, human resources and other administrative employees. In addition, general and administrative expenses include fees and costs for professional services, including consulting, third-party legal and accounting services and facilities costs and other supporting overhead costs that are not allocated to other departments.

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	% Change	2019	2018	% Change
	(in thousands)			(in thousands)		
General and administrative	$ 88,239	$ 74,126	19%	$ 165,415	$ 139,844	18%
General and administrative as a percentage of revenue	10%	10%		10%	10%	

In the three months ended June 30, 2019, general and administrative expenses increased by $14.1 million compared to the three months ended June 30, 2018. The increase was attributable to a $14.1 million increase in personnel-related costs mainly driven by an increase in employee headcount.

In the six months ended June 30, 2019, general and administrative expenses increased by $25.6 million compared to the six months ended June 30, 2018. The increase was attributable to a $24.8 million increase in personnel-related costs mainly driven by an increase in employee headcount, and a $0.8 million increase in other expenses.

We plan to continue to invest in key areas of our business and ensure that we have the right level of general and administrative support on our key priorities and objectives. We expect that general and administrative expenses will increase in absolute dollar amounts and vary as a percentage of revenue.

Interest Expense

Interest expense consists primarily of interest expense incurred in connection with the $935.0 million principal amount of 0.25% convertible senior notes due 2019, or the 2019 Notes, the $954.0 million principal amount of 1.00% convertible senior notes due 2021, or the 2021 Notes, and the $1.15 billion principal amount of 0.25% convertible senior notes due 2024, or the 2024 Notes, and together with the 2019 Notes and 2021 Notes, the Notes, and interest expense related to finance leases and other financing facilities.

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	% Change	2019	2018	% Change
	(in thousands)			(in thousands)		
Interest expense	$ 38,317	$ 29,982	28%	$ 75,577	$ 56,997	33%

In the three and six months ended June 30, 2019, interest expense increased by $8.4 million and $18.6 million, compared to the three and six months ended June 30, 2018. The increase was primarily attributable to our Notes, including the offering of our 2024 Notes in June 2018. Interest expense in the three months and six ended June 30, 2019 was comprised of $37.7 million and $74.2 million, respectively, of total interest expense related to the Notes as well as the credit facility, and $0.6 million and $1.4 million, respectively, related to finance leases of equipment.

Interest Income

Interest income is generated from our cash equivalents and short-term investments net of the related amortization of premium paid on such investments.

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	% Change	2019	2018	% Change
	(in thousands)			(in thousands)		
Interest income	$ 42,887	$ 21,960	95%	$ 83,428	$ 38,141	119%

Interest income increased by $20.9 million and $45.3 million in the three and six months ended June 30, 2019, respectively, compared to the three and six months ended June 30, 2018. The increase was primarily attributable to higher invested cash balances and higher interest rates.

Other Income (Expense), Net

Other income (expense), net, consists primarily of unrealized foreign exchange gains and losses due to re-measurement of monetary assets and liabilities denominated in non-functional currencies and realized foreign exchange gains and losses on foreign exchange transactions, and gains and losses on investments in privately-held companies. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

	Three Months Ended June 30,			Six Months Ended June 30,		
	2019	2018	% Change	2019	2018	% Change
	(in thousands)			(in thousands)		
Other income (expense), net	$ 7,523	$ (5,735)	(231)%	$ 7,087	$ (5,944)	(219)%

Other income, net was $7.5 million and $7.1 million in the three and six months ended June 30, 2019, respectively, compared to other expense, net, of $5.7 million and $5.9 million in the three and six months ended June 30, 2018, respectively. The change was primarily attributable to an $8.6 million gain net of impairment charge on investments in privately-held companies during the three and six months ended June 30, 2019, compared to a $3.0 million impairment charge on our investment in a privately-held company during the three and six months ended June 30, 2018, as well as less favorable foreign currency exchange impacts from foreign currency-denominated assets and liabilities.

Provision (Benefit) for Income Taxes

Our provision (benefit) for income taxes consists of federal and state income taxes in the United States and income taxes in certain foreign jurisdictions. In the six months ended June 30, 2019, we recognized tax benefits of $1.21 billion related to intra-entity transfers of intangible assets that will have deferred future benefits, for which we established deferred tax assets.

On June 7, 2019, the Ninth Circuit Court of Appeals issued a new opinion in the case of Altera Corp. v. Commissioner, which upheld Department of Treasury regulations which require related parties in an intercompany cost-sharing arrangement to share expenses related to stock-based compensation. We have evaluated the court's ruling and have recorded an increase in the tax provision of $80.0 million in the three months ended June 30, 2019 related to changes in uncertain tax positions and deferred tax assets related to the intra-entity transfer of an intangible asset in the three months ended March 31, 2019. On July 22, 2019, Altera Corp. filed a petition for a rehearing before the full Ninth Circuit. We will continue to monitor future developments in this case to determine if there will be further impacts to its consolidated financial statements.

Our future effective tax rate could be affected by our jurisdictional mix of income before taxes, including our allocation of centrally incurred costs to foreign jurisdictions, changes in tax rates and tax regulations, the impact of tax examinations, the impact of business combinations, changes in our corporate structure, changes in the geographic location of business functions or assets, tax effects of share based compensation, and changes in valuation allowance. In addition, the provision is impacted by deferred income taxes and changes in the related valuation allowance reflecting the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
Provision (benefit) for income taxes	$ (1,031,781)	$ (34,250)	$ (1,126,082)	$ (31,365)

Our net benefit from income taxes in the three and six months ended June 30, 2019 was $1.03 billion and $1.13 billion, respectively. Excluding the benefit to tax expense of $1.08 billion and $1.21 billion related to the deferred tax asset establishment from intra-entity transfers of intangible assets, our provision for income taxes in the three and six months ended June 30, 2019 was $50.7 million and $80.8 million, respectively, compared to a benefit from income taxes of $34.3 million and $31.4 million in the three and six months ended June 30, 2018, respectively. The change in tax provision (benefit) excluding the deferred tax asset establishment was primarily due to changes in our uncertain tax positions, the release of our valuation allowance related to Brazil in the second quarter of 2018 and most of the United States federal and all states deferred tax assets with the exception of California and Massachusetts in the third quarter of 2018, and the effects of tax law changes.

Liquidity and Capital Resources

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Consolidated Statements of Cash Flows Data:		
Net income	$ 1,310,364	$ 161,114
Net cash provided by operating activities	690,666	563,813
Net cash used in investing activities	(384,382)	(672,523)

Net cash provided by (used in) financing activities	(25,153)	1,019,872

Our principal sources of liquidity are our cash, cash equivalents, and short-term investments in marketable securities. Our cash equivalents and marketable securities are invested primarily in short-term fixed income securities, including government and investment-grade debt securities and money market funds.

As of June 30, 2019, we had $6.69 billion of cash, cash equivalents and short-term investments in marketable securities, of which $192.9 million was held by our foreign subsidiaries. As a result of the changes under the Tax Cuts and Jobs Act (the “Tax Act”), we have revised our assertion to no longer indefinitely reinvest these funds held by our foreign subsidiaries and have accrued the incremental foreign withholding taxes. In addition, we have a revolving unsecured credit facility available to borrow up to $500.0 million. We believe that our existing cash, cash equivalents and short-term investment balance, and our credit facility, together with cash generated from operations will be sufficient to meet our working capital and capital expenditure requirements for at least the next 12 months, and to repay the $936.2 million of principal and coupon interest associated with our 2019 Notes due in September 2019. We intend to use existing cash to repay our 2019 Notes upon maturity.

Credit Facility

We have a revolving credit agreement with certain lenders which provides for a $500.0 million revolving unsecured credit facility maturing on August 7, 2023. We are obligated to pay interest on loans under the credit facility and other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. The interest rate for the credit facility is determined based on calculations using certain market rates as set forth in the credit agreement. As of June 30, 2019, no amounts had been drawn under the credit facility.

Operating Activities

Cash provided by operating activities consists of net income adjusted for certain non-cash items including depreciation and amortization, stock-based compensation, amortization of discount on our Notes, deferred income taxes, valuation allowance release, impairment of investments in privately-held companies, non-cash restructuring charges, as well as the effect of changes in working capital and other activities. We expect that cash provided by operating activities will fluctuate in future periods as a result of a number of factors, including fluctuations in our revenue, increases in operating expenses and costs related to acquisitions. For additional discussion, see “Part II—Other Information, Item 1A. Risk Factors.”

Cash provided by operating activities in the six months ended June 30, 2019 was $690.7 million, an increase in cash inflow of $126.9 million compared to the six months ended June 30, 2018. Cash provided by operating activities was driven by net income of $1.31 billion, as adjusted for the exclusion of non-cash expenses and other adjustments totaling $690.8 million, of which $1.14 billion was due to a benefit from income taxes related to the establishment of deferred tax assets from intra-entity transfers of intangible assets, $229.1 million was related to depreciation and amortization expense, and $178.1 million was related to stock-based compensation expense, and the effect of changes in working capital and other carrying balances that resulted in cash inflows of $71.1 million.

Cash provided by operating activities in the six months ended June 30, 2018 was $563.8 million. Cash provided by operating activities was driven by net income of $161.1 million, as adjusted for the exclusion of non-cash expenses and other adjustments totaling $357.3 million, of which $202.8 million was related to depreciation and amortization expense, and $152.7 million was related to stock-based compensation expense, and the effect of changes in working capital and other carrying balances that resulted in cash inflows of $45.4 million.

Investing Activities

Our primary investing activities consist of purchases of property and equipment, particularly purchases of servers and networking equipment, leasehold improvements for our facilities, purchases and disposal of marketable securities, strategic investments in privately-held companies, acquisitions of businesses and other activities.

Cash used in investing activities in the six months ended June 30, 2019 was $384.4 million, a decrease in cash outflow of $288.1 million compared to the six months ended June 30, 2018. The decrease was primarily due to a $1.19 billion increase in proceeds from sales and maturities of marketable securities, a $70.7 million decrease in purchases of property and equipment, a $13.5 million decrease in expenditures on other investing activities, and a $12.2 million decrease in cash used in business combination, offset by a $1.0 billion increase in purchases of marketable securities, and a $1.4 million decrease in proceeds from sales of property and equipment.

We anticipate making capital expenditures in 2019 of approximately $550 million to $600 million, as we continue to expand our co-located data centers and continue to refresh a number of our office spaces.

Financing Activities

Our primary financing activities consist of issuance of securities, including common stock issued under our employee stock purchase plan, payments of finance lease obligations, and stock option exercises by employees and other service providers.

Cash used in financing activities in the six months ended June 30, 2019 was $25.2 million, compared to $1.02 billion cash provided by financing activities in the six months ended June 30, 2018. The change was primarily due to $1.14 billion of net proceeds from the issuance of convertible notes net of issuance costs, which was reduced by a net cash outflow of $81.2 million from the purchase of convertible note hedges and sale of warrants closed in connection with the issuance of convertible notes, in the six months ended June 30, 2018, a $3.6 million increase in tax payments related to net share settlements of equity awards, and a $2.6 million decrease in proceeds from option exercises, offset by a $9.3 million decrease in payments of finance lease obligations, and an $8.9 million increase in proceeds from the issuance of shares of stock from the ESPP.

Off Balance Sheet Arrangements

We do not have any off-balance sheet arrangements and did not have any such arrangements as of June 30, 2019.

Contractual Obligations

Our principal commitments consist of obligations under the Notes (including principal and coupon interest), finance and operating leases for equipment, office space and co-located data center facilities, as well as non-cancellable contractual commitments. Refer to Note 14 – Commitments and Contingencies for more details.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with GAAP. In doing so, we make estimates and assumptions that affect our reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. To the extent that there are material differences between these estimates and actual results, our financial condition or operating results would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates. Please refer to “Management’s Discussion and Analysis of Financial Condition and Results of Operations” contained in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 for a more complete discussion of our critical accounting policies and estimates.

Income Taxes

The establishment of deferred tax assets from intra-entity transfers of intangible assets requires management to make significant estimates and assumptions to determine the fair value of such intangible assets. Critical estimates in valuing the intangible assets include, but are not limited to, internal revenue and expense forecasts, the estimated life of the intangible assets, and discount rates. The discount rates used in the income method to discount expected future cash flows to present value are derived from a weighted-average cost of capital analysis and are adjusted to reflect the inherent risks related to the cash flow. Although we believe the assumptions and estimates we have made are reasonable and appropriate, they are based, in part, on historical experience and are inherently uncertain. Unanticipated events and circumstances may occur that could affect either the accuracy or validity of such assumptions, estimates or actual results.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, except as described in regards to our accounting policy related to leases in Note 6 of Part I, Item 1, and above, of this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

For information with respect to recent accounting pronouncements and the impact of these pronouncements on our consolidated financial statements, see Note 1 – “Description of Business and Summary of Significant Accounting Policies” in the notes to the consolidated financial statements included in Part I of this Quarterly Report on Form 10-Q.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have operations both within the United States and internationally, and we are exposed to market risks in the ordinary course of our business. These risks include primarily interest rate and foreign exchange risks.

Interest Rate Fluctuation Risk

Our investment portfolio mainly consists of short-term fixed income securities, including government and investment-grade debt securities and money market funds. These securities are classified as available-for-sale and, consequently, are recorded in the consolidated balance sheets at fair value with unrealized gains or losses, net of tax reported as a separate component of accumulated other comprehensive loss. Our investment policy and strategy is focused on the preservation of capital and supporting our liquidity requirements. We do not enter into investments for trading or speculative purposes.

A rise in interest rates could have a material adverse impact on the fair value of our investment portfolio. Based on our investment portfolio balance as of June 30, 2019, a hypothetical increase in interest rates of 100 basis points would result in a decrease of approximately $29.9 million in the fair value of our available-for-sale securities. We currently do not hedge these interest rate exposures.

In 2014 and 2018, we issued convertible senior notes with an aggregate principal amount of $1.89 billion and $1.15 billion, respectively. We carry the Notes at face value less amortized discount on the consolidated balance sheet. Since the Notes bear interest at fixed rates, we have no financial statement risk associated with changes in interest rates. However, the fair value of the Notes changes when the market price of our stock fluctuates or interest rates change.

Foreign Currency Exchange Risk

Transaction Exposure

We transact business in various foreign currencies and have international revenue, as well as costs denominated in foreign currencies, primarily the Euro, British Pound, Singapore Dollar and Japanese Yen. This exposes us to the risk of fluctuations in foreign currency exchange rates. Accordingly, changes in exchange rates, and in particular a continuing strengthening of the U.S. dollar, would negatively affect our revenue and other operating results as expressed in U.S. dollars.

We have experienced and will continue to experience fluctuations in our net income as a result of transaction gains or losses related to revaluing and ultimately settling certain asset and liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. Foreign currency gains were immaterial for the three and six months ended June 30, 2019 and 2018. We currently utilize foreign currency forward contracts with financial institutions to reduce the risk that our earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary. These contracts are not designated as hedging instruments. We may in the future enter into other derivative financial instruments if it is determined that such hedging activities are appropriate to further reduce our foreign currency exchange risk. Based on our foreign currency exposures from monetary assets and liabilities net of our open hedge position, we estimated that a 10% change in exchange rates against the U.S. dollars would have resulted in a gain or loss of approximately $1.7 million as of June 30, 2019.

Translation Exposure

We are also exposed to foreign exchange rate fluctuations as we translate the financial statements of our foreign subsidiaries into U.S. dollars in consolidation. If there is a change in foreign currency exchange rates, the translating adjustments resulting from the conversion of our foreign subsidiaries' financial statements into U.S. dollars would result in a gain or loss recorded as a component of accumulated other comprehensive loss which is part of stockholders' equity.

Item 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. The design of disclosure controls and procedures and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of June 30, 2019, our disclosure controls and procedures were designed at a reasonable assurance level and were effective to provide reasonable assurance.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) or 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

Beginning in September 2016, multiple putative class actions and derivative actions were filed in state and federal courts in the United States against Twitter, Twitter's directors, and/or certain former officers alleging that false and misleading statements, made in 2015, are in violation of securities laws and breached fiduciary duty. The putative class actions were consolidated in the U.S. District Court for the Northern District of California. On October 16, 2017, the court granted in part and denied in part the Company's motion to dismiss. On July 17, 2018, the court granted plaintiffs' motion for class certification in the consolidated securities action. The Company disputes the claims and intends to continue to defend the lawsuits vigorously.

We are also currently involved in, and may in the future be involved in, legal proceedings, claims, investigations, and government inquiries arising in the ordinary course of business. These proceedings, which include both individual and class action litigation and administrative proceedings, have included, but are not limited to matters involving content on the platform, intellectual property, privacy, securities, employment and contractual rights. Legal risk may be enhanced in jurisdictions outside the United States where our protection from liability for content published on our platform by third parties may be unclear and where we may be less protected under local laws than we are in the United States. Future litigation may be necessary, among other things, to defend ourselves, and our users or to establish our rights.

Although the results of the legal proceedings, claims, investigations, and government inquiries in which we are involved cannot be predicted with certainty, we do not believe that there is a reasonable possibility that the final outcome of these matters will have a material adverse effect on our business, financial condition, operating results, or prospects. However, the final results of any current or future proceeding cannot be predicted with certainty, and until there is final resolution on any such matter that we may be required to accrue for, we may be exposed to loss in excess of the amount accrued. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Quarterly Report on Form 10-Q, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before making a decision to invest in our common stock. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occurs, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business and Our Industry

If we fail to increase our mDAU, ad engagement or other general engagement on our platform, our revenue, business and operating results may be harmed.

The size of our mDAU and their level of engagement with advertising are critical to our success. mDAU for the three months ended June 30, 2019 was 139 million, an increase of 14% year-over-year. Our long-term financial performance will continue to be significantly determined by our success in increasing the growth rate of our mDAU as well as the number of ad engagements. Our mDAU growth rate has fluctuated over time, and it may slow or decline. To the extent our mDAU growth rate slows or the absolute number of mDAU declines, our revenue growth will become dependent on our ability to increase levels of user engagement on Twitter and increase revenue growth from third-party publishers' websites and applications, data licensing and other offerings. We generate a substantial majority of our revenue based upon engagement by our users with the ads that we display. If people do not perceive our products and services to be useful, reliable and trustworthy, we may not be able to attract users or increase the frequency of their engagement with our platform and the ads that we display. A number of factors could potentially negatively affect user growth and engagement, including if:

- accounts, including influential accounts, such as those of world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands or certain age demographics, engage with other products, services or activities as an alternative to ours;
- we are unable to convince potential or new people of the value and usefulness of our products and services;
- there is a decrease in the perceived quantity, quality, usefulness or relevance of the content generated by the people who use Twitter or content partners;
- there could also be a perception that actions we take to better foster a healthy conversation or to improve relevancy on the platform negatively impact the content or ranking of content posted by certain accounts;
- our content partners terminate their relationships with us or do not renew their agreements on economic or other terms that are favorable to us;

- there are concerns related to privacy and communication, safety, security, spam, manipulation or other hostile or inappropriate usage or other factors, or our health efforts result in the removal of certain accounts;
- we fail to introduce new and improved products or services or if we introduce new or improved products or services that are not favorably received or that negatively affect user engagement;
- technical or other problems prevent us from delivering our products or services in a rapid and reliable manner or otherwise affect the user experience, including issues with connecting to the Internet;
- users have difficulty installing, updating, or otherwise accessing our products or services on mobile devices as a result of actions by us or third parties that we rely on to distribute our products and deliver our services;
- we are unable to manage and prioritize information to ensure users are presented with content that is interesting, useful and relevant to them;
- users believe that their experience is diminished as a result of the decisions we make with respect to the frequency, format, relevance and prominence of ads or other content that we display;
- changes in our products or services that are mandated by, or that we elect to make to address, laws (such as the General Data Protection Regulation, or the GDPR) or legislation, inquiries from legislative bodies, regulatory authorities or litigation (including settlements or consent decrees) adversely affect our products or users;
- we fail to provide adequate customer service to users; or
- we do not maintain our brand image or our reputation is damaged.

We believe that meaningful improvement in audience growth rate and engagement is dependent on improving our product and feature offerings to demonstrate our value proposition to a larger audience. If we are unable to increase our user base, user growth rate or user engagement, or if these metrics decline, our products and services could be less attractive to potential or new users, as well as to advertisers, content partners and platform partners, which would have a material and adverse impact on our business, financial condition and operating results.

If the people who use our service or our content partners do not continue to contribute content or such content is not viewed as unique or engaging by other users, or if we are unable to successfully prevent or mitigate spammy, abusive or other disruptive or detracting behavior on Twitter, we may experience a decline in users accessing our products and services and their engagement, which could result in the loss of content partners, advertisers, platform partners, and revenue.

Our success depends on our ability to provide users of our products and services with unique and engaging content, which in turn depends on the content contributed by our users. We believe that one of our competitive advantages is the quality, quantity and real-time nature of the content on Twitter, and that access to unique or real-time content is one of the main reasons users visit Twitter. We seek to foster a broad and engaged user community, and we encourage world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands to use our products and services to express their views to broad audiences. We also encourage media outlets to use our products and services to distribute their content. In addition, we license our premium live streaming video content from a variety of content providers. If these content providers are no longer willing or able to license us content upon economic and other terms that are acceptable to us, our ability to stream such content will be adversely affected and/or our costs could increase. If users, including influential users, do not continue to contribute content or content providers do not license content to Twitter, and we are unable to provide users with unique, engaging and timely content, our user base and engagement may decline. Additionally, if we are not able to address user concerns regarding the safety and security of our products and services or if we are unable to successfully prevent or mitigate spammy, abusive or other disruptive or detracting behavior on our platform, the size of our engaged user base may decline. We rely on the sale of advertising services for the substantial majority of our revenue. We believe advertisers come to Twitter because we have one of the most valuable audiences when they are most receptive, and we generate a high return on investment against their campaign objectives whether they are launching a new product or connecting with what's happening on Twitter. However, a decline in the number of users, user growth rate, or user engagement, including as a result of the loss of world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands who generate content on Twitter, may deter advertisers from using our products or services or cause current advertisers to reduce their spending with us or cease doing business with us, which would harm our business and operating results.

We generate the substantial majority of our revenue from advertising. The loss of advertising revenue could harm our business.

The substantial majority of our revenue is currently generated from third parties advertising on Twitter. We generated approximately 86% of our revenue from advertising in the fiscal year ended December 31, 2018 and the six months ended June 30, 2019. We generate substantially all of our advertising revenue through the sale of our Promoted Products: Promoted Tweets, Promoted Accounts and Promoted Trends. As is common in our industry, our advertisers do not have long-term advertising commitments with us. In addition, many of our advertisers purchase our advertising services through one of several large advertising agency holding companies. To sustain or increase our revenue, we must add new advertisers and encourage existing advertisers to maintain or increase the amount of advertising inventory purchased through our platform and adopt new features and functionalities that we add to our platform. However, advertising agencies and potential new advertisers may view our Promoted Products or any new products or services we offer as experimental and unproven, and we may need to devote additional time and resources to educate them about our products and services. Advertisers also may choose to reach users through our free products and services, instead of our Promoted Products. Advertisers will not continue to do business with us, or they will reduce the prices they are willing to pay to advertise with us, if we do not deliver ads in an effective manner, or if they do not believe that their investment in advertising with us will generate a competitive return on investment relative to alternatives, including online, mobile and traditional advertising platforms. In addition, competition for advertising is becoming increasingly more intense and our advertising revenue could be further impacted by escalating competition for digital ad spending as well as the re-evaluation of our revenue product feature portfolio, which could result in the de-emphasis of certain product features. Our revenue growth is primarily driven by increases in the number of our mDAU, increases in ad pricing or number of ads shown driven by strong advertiser demand, increases in our clickthrough rate, as well as other factors. To date, our available advertising inventory has been greater than demand. Our future revenue growth, however, may be limited by available advertising inventory for specific ad types on certain days if we do not increase our mDAU or monetize our larger global audience. Our advertising revenue also could be adversely affected by a number of other factors, including:

- decreases in user engagement with the ads on our platform and those that we serve off of our platform;
- decreases in the size of our mDAU or the growth rate of mDAU;
- if we are unable to demonstrate the value of our Promoted Products to advertisers and advertising agencies or if we are unable to measure the value of our Promoted Products in a manner which advertisers and advertising agencies find useful or reliable;
- if we are perceived as not safe for brand advertisers;
- if we are unable to demonstrate the value of, or attract video and video advertisements to, our platform;
- decreases in the perceived quantity, quality, usefulness or relevance of our users or the content generated by our users or content partners;
- if our Promoted Products are not cost effective or not valued by certain types of advertisers or if we are unable to develop cost effective or valuable advertising services for different types of advertisers;
- if we are unable to convince advertisers and brands to invest resources in learning to use our products and services and maintaining a brand presence on Twitter;
- our advertisers’ ability to optimize their campaigns or effectively and reliably measure the results of their campaigns;
- product or service changes we may make that change the frequency or relative prominence of ads displayed on Twitter or that detrimentally impact revenue in the near term with the goal of achieving long-term benefits;
- our inability to increase advertiser demand and spend from new and existing advertisers as well as advertising inventory;
- our inability to increase the relevance of ads;
- our inability to help advertisers effectively target ads, including as a result of the fact that we do not collect extensive personal information from our users and that we do not have real-time geographic information for all of our users particularly for ads served through our mobile-focused advertising exchange;
- decreases in the cost per ad engagement;
- failure to effectively monetize our growing international user base, our logged-out audience or our syndicated audience;
- loss of advertising market share to our competitors;
- the degree to which people access Twitter content through applications that do not contain our ads;
- any arrangements or other partnerships with third parties to share our revenue;
- if our new advertising strategies do not gain traction;
- the impact of new technologies that could block or obscure the display of our ads;

- adverse legal developments relating to advertising or measurement tools related to our metrics or the effectiveness of advertising, including legislative and regulatory developments, such as GDPR and other privacy regulations, and developments in litigation;
- our inability to create new products, product features and services that sustain or increase the value of our advertising services to both our advertisers and our users;
- changes to our products or development of new products or product features that decrease users' ad engagements or limit the types of user interactions that we count as ad engagements;
- the impact of fraudulent clicks or spam on our Promoted Products and our users;
- changes in the way our advertising is priced; and
- the impact of macroeconomic conditions and conditions in the advertising industry in general.

The occurrence of any of these or other factors could result in a reduction in demand for our ads, which may reduce the prices we receive for our ads, either of which would negatively affect our revenue and operating results.

If we are unable to compete effectively for users and advertiser spend, our business and operating results could be harmed.

Competition for users of our products and services is intense. Although we have developed a global platform that we believe is the best and fastest place to see what's happening and what people are talking about all around the world, we face strong competition in our business. We compete against many companies to attract and engage users every day, including companies which have greater financial resources and substantially larger user bases, such as Facebook (including Instagram and WhatsApp), Alphabet (including Google and YouTube), Microsoft (including LinkedIn), Snap, TikTok, and Verizon Media Group, which offer a variety of Internet and mobile device-based products, services and content. For example, Facebook operates a social networking site with significantly more users than Twitter and has been introducing features similar to those of Twitter. In addition, Alphabet may use its strong position in one or more markets to gain a competitive advantage over us in areas in which we operate, including by integrating competing features into products or services they control. As a result, our competitors may draw users towards their products or services and away from ours. This could decrease the growth or engagement of our user base, which, in turn, would negatively affect our business. We also compete against largely regional social media and messaging companies that have strong positions in particular countries such as WeChat, Kakao and Line.

We believe that our ability to compete effectively for users depends upon many factors both within and beyond our control, including:

- the popularity, usefulness, ease of use, performance and reliability of our products and services compared to those of our competitors;
- the amount, quality and timeliness of content generated by our users and content partners;
- the timing and market acceptance of our products and services;
- our ability, in and of itself, and in comparison to the ability of our competitors, to develop new products and services and enhancements to existing products and services;
- the frequency and relative prominence of the ads displayed by us or our competitors;
- our ability to establish and maintain relationships with content partners;
- our ability to develop a reliable, scalable, secure, high-performance technology infrastructure that can efficiently handle increased usage globally;
- changes mandated by, or that we elect to make to address, legislation, regulatory authorities or litigation, including settlements, consent decrees and the GDPR, some of which may have a disproportionate effect on us;
- the application of antitrust laws both in the United States and internationally;
- the continued adoption of our products and services internationally;
- our ability to establish and maintain relationships with platform partners that integrate with our platform;
- acquisitions or consolidation within our industry, which may result in more formidable competitors; and
- our reputation and brand strength relative to our competitors.

We also face significant competition for advertiser spend. The substantial majority of our revenue is currently generated through third parties advertising on Twitter, and we compete against online and mobile businesses, including those referenced above, and traditional media outlets, such as television, radio and print, for advertising budgets. In addition, many advertisers, particularly branded advertisers, use marketing mix analyses to determine how to allocate their advertising budgets on an annual or bi-annual basis. Accordingly, if we fail to demonstrate to such advertisers during the appropriate time period that we provide a better return on investment than our competitors do, we may lose the opportunity to secure, increase or sustain our share of the advertising budget allocated for a significant portion of the year until the next budget cycle.

We also compete with advertising networks, exchanges, demand side platforms and other platforms, such as Google AdSense, DoubleClick Ad Exchange, Nexage and Brightroll Ad Exchanges, Verizon Media Group, and Microsoft Media Network, for marketing budgets and in the development of the tools and systems for managing and optimizing advertising campaigns. In order to grow our revenue and improve our operating results, we must increase our share of spending on advertising relative to our competitors, many of which are larger companies that offer more traditional and widely accepted advertising products. In addition, some of our larger competitors have substantially broader product or service offerings and leverage their relationships based on other products or services to gain additional share of advertising budgets.

We believe that our ability to compete effectively for advertiser spend depends upon many factors both within and beyond our control, including:

- the size and composition of our user base relative to those of our competitors;
- our ad targeting and measurement capabilities, and those of our competitors;
- the timing and market acceptance of our advertising services, and those of our competitors;
- our marketing and selling efforts, and those of our competitors;
- the pricing of our advertising products and services relative to those of our competitors;
- the actual or perceived return our advertisers receive from our advertising services, and those of our competitors; and
- our reputation and the strength of our brand relative to our competitors.

In recent years, there have been significant acquisitions and consolidation by and among our actual and potential competitors. We anticipate this trend of consolidation will continue, which will present heightened competitive challenges for our business. Acquisitions by our competitors may result in reduced functionality of our products and services. For example, following Facebook's acquisition of Instagram, Facebook disabled Instagram's photo integration with Twitter such that Instagram photos were no longer viewable within Tweets and users are instead re-directed to Instagram to view Instagram photos through a link within a Tweet. As a result, our users may be less likely to click on links to Instagram photos in Tweets, and Instagram users may be less likely to Tweet or remain active users of Twitter. Any similar elimination of integration with Twitter in the future, whether by Facebook or others, may adversely impact our business and operating results.

Consolidation may also enable our larger competitors to offer bundled or integrated products that feature alternatives to our platform. Reduced functionality of our products and services, or our competitors' ability to offer bundled or integrated products that compete directly with us, may cause our users, user growth rate, and ad engagement to decline and advertisers to reduce their spend with us.

If we are not able to compete effectively for users and advertiser spend our business and operating results would be materially and adversely affected.

Our priority as a company is to improve the health of the public conversation on Twitter. Focusing our efforts on this priority may negatively impact our business operations in the short term.

We believe that our long-term success depends on our ability to improve the health of the public conversation on Twitter. We have made this our priority and have focused our efforts on improving the quality of that conversation, including by devoting substantial internal resources to our strategy. These efforts include the reduction of abuse, harassment, spam, manipulation and malicious automation on the platform, as well as a focus on improving information quality and the health of conversation on Twitter. For example, in the past, we announced that we were removing certain locked accounts from follower counts across profiles globally. While that specific change did not affect our previously-disclosed mDAU metrics, some of the health initiatives that we have implemented as part of our ongoing commitment to a healthy public conversation have negatively impacted, and may in the future negatively impact, our publicly reported metrics in a few ways. First, our health efforts include the removal of accounts pursuant to our terms and services that are abusive, spammy, fake or malicious, and these accounts may have been included in our mDAU, as well as actions taken to detect and challenge potentially automated, spammy, or malicious accounts during the sign-up process. For example, in the third and fourth quarters of 2018, year-over-year average mDAU growth was impacted by ongoing health efforts, both due to how we resourced and prioritized our work and the impact from ongoing success removing spammy and suspicious accounts. Second, we are also making active decisions to prioritize health related initiatives over other near-term product improvements that may drive more usage of Twitter as a daily utility. These decisions may not be consistent with the short-term expectations of our advertising customers or investors and may not produce the long-term benefits that we expect, in which case our user growth and user engagement, our relationships with advertisers and our business and operating results could be harmed.

We focus on the long-term health of our service, product innovation, and providing something valuable to people on Twitter every day, rather than short-term operating results.

We encourage employees to quickly develop and help us launch new and innovative features. We focus on improving the user experience for our products and services, which includes protecting user privacy, and on developing new and improved products and services for the advertisers on our platform. For example, we are making investments in improving the health of the public conversation on Twitter, focusing on the long-term health of the platform over near-term metrics. We prioritize innovation and the experience for users and advertisers on our platform over short-term operating results. We frequently make product, product feature and service decisions that may reduce our short-term operating results if we believe that the decisions are consistent with our goals to improve the user experience and performance for advertisers, which we believe will improve our operating results over the long term. For example, we are investing in our live-streaming video experiences, and we may not successfully monetize such experiences. These decisions may not be consistent with the short-term expectations of investors and may not produce the long-term benefits that we expect, in which case our user growth and user engagement, our relationships with advertisers and our business and operating results could be harmed. In addition, our focus on the user experience may negatively impact our relationships with our existing or prospective advertisers. This could result in a loss of advertisers, which could harm our revenue and operating results.

Our operating results may fluctuate from quarter to quarter, which makes them difficult to predict.

Our quarterly operating results have fluctuated in the past and will fluctuate in the future. As a result, our past quarterly operating results are not necessarily indicators of future performance. Our operating results in any given quarter can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including:

- our ability to provide something valuable to people on Twitter every day and grow our mDAU;
- our ability to attract and retain advertisers, content partners and platform partners;
- the occurrence of planned significant events, such as the World Cup, Super Bowl, Champions League Final, World Series, the Olympics and the Oscars, or unplanned significant events, such as natural disasters and political revolutions;
- the pricing of our products and services;
- the development and introduction of new products or services, changes in features of existing products or services or de-emphasis or termination of existing products, product features or services;
- the impact of competitors or competitive products and services;
- our ability to maintain or increase revenue;
- our ability to maintain or improve gross margins and operating margins;
- increases in research and development, marketing and sales and other operating expenses that we may incur to grow and expand our operations and to remain competitive;
- stock-based compensation expense;
- costs related to the acquisition of businesses, talent, technologies or intellectual property, including potentially significant amortization costs;
- system failures resulting in the inaccessibility of our products and services;
- breaches of security or privacy, and the costs associated with remediating any such breaches;

- adverse litigation judgments, settlements or other litigation-related costs, and the fees associated with investigating and defending claims;
- changes in the legislative or regulatory environment, including with respect to security, tax, privacy, data protection, or content, or enforcement by government regulators, including fines, orders or consent decrees;
- changes in reserves or other non-cash credits or charges, such as releases of deferred tax asset valuation allowances, impairment charges or purchase accounting adjustments;
- changes in our expected estimated useful life of property and equipment and intangible assets;
- fluctuations in currency exchange rates and changes in the proportion of our revenue and expenses denominated in foreign currencies;
- changes in U.S. generally accepted accounting principles; and
- changes in global business or macroeconomic conditions.

Given our limited operating history and the rapidly evolving markets in which we compete, our historical operating results may not be useful to you in predicting our future operating results. If our revenue growth rate slows, we expect that the seasonality in our business may become more pronounced and may in the future cause our operating results to fluctuate. For example, advertising spending is traditionally seasonally strong in the fourth quarter of each year and we believe that this seasonality affects our quarterly results, which generally reflect higher sequential advertising revenue growth from the third to fourth quarter compared to sequential advertising revenue growth from the fourth quarter to the subsequent first quarter. In addition, global economic concerns continue to create uncertainty and unpredictability and add risk to our future outlook. An economic downturn in any particular region in which we do business or globally could result in reductions in advertising revenue, as our advertisers reduce their advertising budgets, and other adverse effects that could harm our operating results.

We depend on highly skilled personnel to grow and operate our business, and have seen high levels of attrition. If we are unable to hire, retain and motivate our personnel, we may not be able to grow effectively.

Our future success and strategy will depend upon our continued ability to identify, hire, develop, motivate and retain highly skilled personnel, including senior management, engineers, designers and product managers. We depend on contributions from our employees, and in particular our senior management team, to execute efficiently and effectively. We do not have employment agreements other than offer letters with any member of our senior management or other key employee, and we do not maintain key person life insurance for any employee. We also face significant competition for employees, particularly in the San Francisco Bay Area (where our headquarters is located) and other key markets, for engineers, designers and product managers from other Internet and high-growth companies, which include both publicly-traded and privately-held companies. As a result, we may not be able to retain our existing employees or hire new employees quickly enough to meet our needs. From time to time, we have also experienced high voluntary attrition, and in those times, the resulting influx of new leaders and other employees has required us to expend time, attention and resources to recruit and retain talent, restructure parts of our organization, and train and integrate new employees. In addition, to attract highly and retain skilled personnel, we have had to offer, and believe we will need to continue to offer, highly competitive compensation packages. We may need to invest significant amounts of cash and equity to attract and retain new employees and we may not realize sufficient return on these investments. In addition, changes to U.S. immigration and work authorization laws and regulations can be significantly affected by political forces and levels of economic activity. Our business may be materially adversely affected if legislative or administrative changes to immigration or visa laws and regulations impair our hiring processes or projects involving personnel who are not citizens of the country where the work is to be performed. If we are not able to effectively attract and retain employees, we may not be able to innovate or execute quickly on our strategy and our ability to achieve our strategic objectives will be adversely impacted, and our business will be harmed.

We also believe that our culture and core values have been, and will continue to be, a key contributor to our success and our ability to foster the innovation, creativity and teamwork we believe we need to support our operations. If we fail to effectively manage our hiring needs and successfully integrate our new hires, our efficiency and ability to meet our forecasts and our culture, employee morale, productivity and retention could suffer, and our business and operating results could be adversely affected.

If we fail to monetize effectively in international markets, our revenue and our business will be harmed.

We may not be able to monetize our products and services internationally as effectively as in the United States as a result of competition, advertiser demand, differences in the digital advertising market and digital advertising conventions, as well as differences in the way that users in different countries access or utilize our products and services. For example, a significant portion of users in emerging markets like India and Pakistan use feature phones and communicate via SMS messaging, both of which have limited functionality and neither of which may be able to take full advantage of our products and services offered on smartphone or our website or desktop applications. Users who access Twitter through SMS messaging may monetize at lower rates than other users. Differences in the competitive landscape in international markets may impact our ability to monetize our products and services. For example, in South Korea we face intense competition from a messaging service offered by Kakao, which offers some of the same communication features as Twitter. The existence of a well-established competitor in an international market may adversely affect our ability to increase our user base, attract content partners, advertisers and platform partners and monetize our products in such market. We may also experience differences in advertiser demand in international markets. For example, during times of political upheaval, advertisers may choose not to advertise on Twitter. Certain international markets are also not as familiar with digital advertising in general, or in new forms of digital advertising such as our Promoted Products. Further, we face challenges in providing certain advertising products, features or analytics in certain international markets, such as the European Union, due to government regulation. Our products and services may also be used differently abroad than in the United States. In particular, in certain international markets where Internet access is not as rapid or reliable as in the United States, users tend not to take advantage of certain features of our products and services, such as rich media included in Tweets, video or live streaming video. The limitation of mobile devices of users in emerging and other markets limits our ability to deliver certain features to those users and may limit the ability of advertisers to deliver compelling advertisements to users in these markets, which may result in reduced ad engagements, which would adversely affect our business and operating results.

If our revenue from our international operations, and particularly from our operations in the countries and regions where we have focused our spending, does not exceed the expense of establishing and maintaining these operations, our business and operating results will suffer. In addition, our user base may expand more rapidly in international regions where we are less successful in monetizing our products and services. As our user base continues to expand internationally, we will need to increase revenue from the activity generated by our international users in order to grow our business. For example, average mDAU outside the United States constituted 79% of our average mDAU in the three months ended June 30, 2019, but our international revenue, as determined based on the billing location of our customers, was only 46 % of our consolidated revenue in the three months ended June 30, 2019. Our inability to successfully expand our business internationally could adversely affect our business, financial condition and operating results.

User growth and engagement depend upon effective interoperation with operating systems, networks, devices, web browsers and standards that we do not control.

We make our products and services available across a variety of operating systems and through websites. We are dependent on the interoperability of our products and services with popular devices, desktop and mobile operating systems and web browsers that we do not control, such as Mac OS, iOS, Windows, Android, Chrome and Firefox. Any changes, bugs or technical issues in such systems, devices or web browsers or changes in our relationships with mobile operating system partners or mobile carriers, or in their terms of service or policies that diminish the functionality of our products and services, make it difficult for our users to access our content, limit our ability to target or measure the effectiveness of ads, impose fees related to our products or services or give preferential treatment to competitive products or services could adversely affect usage of our products and services. For example, many of our relationships with our mobile carriers to deliver our SMS messages were originally negotiated as free or low-cost connections, but recently some of the mobile carriers have been proposing fee increases for these arrangements, which may not be cost-effective for us. This may, in turn, adversely affect the number of users who receive our SMS messages. Additionally, some of our mobile carriers have experienced infrastructure issues due to natural disasters, which have caused deliverability errors or poor quality communications with our products. Any such errors, regardless of whether caused by our infrastructure or that of the service provider, may result in the loss of our existing users or may make it difficult to attract new users. Further, if the number of platforms for which we develop our product expands, it will result in an increase in our operating expenses. In order to deliver high quality products and services, it is important that our products and services work well with a range of operating systems, networks, devices, web browsers and standards that we do not control. In addition, because a majority of our users access our products and services through mobile devices, we are particularly dependent on the interoperability of our products and services with mobile devices and operating systems in order to deliver our products and services. We also may not be successful in developing relationships with key participants in the mobile industry or in developing products or services that operate effectively with these operating systems, networks, devices, web browsers and standards. In the event that it is difficult for our users to access and use our products and services, particularly on their mobile devices, our mDAU could be harmed, and our business and operating results could be adversely affected.

Our products and services may contain undetected software errors, which could harm our business and operating results.

Our products and services incorporate complex software and we encourage employees to quickly develop and help us launch new and innovative features. Our software, including any open source software that is incorporated into our code, has contained, and may now or in the future contain, errors, bugs or vulnerabilities. For example, in May 2018, we announced that an internal bug had resulted in the storage of passwords unmasked in an internal log. When users set a password for their Twitter accounts, we secure those passwords in a format that prevents anyone at Twitter from seeing or knowing the actual password through a password hashing function, which replaces the actual password with a random set of numbers and letters that are stored in Twitter's system. Due to a bug, passwords were written to a service log before completing the hashing process. We found this error ourselves, removed the passwords from the logs, and are implementing plans to prevent this bug from happening again. Our investigation shows no indication of breach or misuse by anyone. In September 2018, we announced an internal bug related to our Account Activity API, which allows registered developers to build customer support and engagement tools for businesses and others on Twitter. This bug may have caused some of the customer communications and engagements with businesses and others on Twitter to be unintentionally sent to another registered developer. Although our initial analysis indicates that a complex series of technical circumstances had to occur at the same time for this bug to have resulted in account information definitively being shared with the wrong recipient, we contacted our developer partners to ensure that they are complying with their obligations to delete information they should not have in their possession. As was the case with these errors, errors in our software code may only be discovered after the product or service has been released. Errors, vulnerabilities, or other design defects within the software on which we rely may result in a negative experience for users, partners and advertisers who use our products, delay product introductions or enhancements, result in targeting, measurement, or billing errors, compromise our ability to protect the data of our users and/or our intellectual property or lead to reductions in our ability to provide some or all of our services. Any errors, bugs or vulnerabilities discovered in our code after release could result in damage to our reputation, loss of users, loss of content or platform partners, loss of advertisers or advertising revenue or liability for damages or other relief sought in lawsuits, regulatory inquiries or other proceedings, any of which could adversely affect our business and operating results.

Our ability to convince potential and new users of the value of our products and services is critical to increasing our user base and to the success of our business.

We have developed a global platform that we believe is the best and fastest place to see what's happening and what people are talking about all around the world, but the market for our products and services is relatively new and may not continue to develop as expected. Despite our efforts to reduce barriers to consumption, people who are not our users may not understand the value of our products and services and new users may initially find our products confusing, which may make retention of such users more difficult. There may be a perception that our products and services are only useful to users who Tweet, or to influential users with large audiences. Convincing potential and new users of the value of our products and services is critical to increasing our user base, user engagement and to the success of our business.

If we fail to educate potential users and potential advertisers about the value of our products and services, if the market for our platform does not continue to develop as we expect or if we fail to address the needs of this market, our business will be harmed. Failure to adequately address these risks and challenges could harm our business and cause our operating results to suffer.

Our business depends on continued and unimpeded access to our products and services on the Internet by our users, content partners, advertisers, and platform partners. If we or our users experience disruptions in Internet service or if Internet service providers are able to block, degrade or charge for access to our products and services, we could incur additional expenses and the loss of users and advertisers.

We depend on the ability of our users, content partners, advertisers and platform partners to access the Internet. Currently, this access is provided by companies that have significant market power in the broadband and Internet access marketplace, including incumbent telephone companies, cable companies, mobile communications companies, government-owned service providers, device manufacturers and operating system providers, any of whom could take actions that degrade, disrupt or increase the cost of user access to our products or services, which would, in turn, negatively impact our business. The adoption or repeal of any laws or regulations that adversely affect the growth, popularity or use of the Internet, including laws or practices limiting Internet neutrality, could decrease the demand for, or the usage of, our products and services, increase our cost of doing business and adversely affect our operating results. For example, access to Twitter is blocked in China and has been intermittently blocked in Turkey in the past and certain of our SMS messages have been blocked in Saudi Arabia. We also rely on other companies to maintain reliable network systems that provide adequate speed, data capacity and security to us and our users. As the Internet continues to experience growth in the number of users, frequency of use and amount of data transmitted, the Internet infrastructure that we and our users rely on may be unable to support the demands placed upon it. The failure of the Internet infrastructure that we or our users rely on, even for a short period of time, could undermine our operations and harm our operating results.

Our new products, product features, services and initiatives and changes to existing products, services and initiatives could fail to attract users, content partners, advertisers and platform partners or generate revenue.

Our industry is subject to rapid and frequent changes in technology, evolving customer needs and the frequent introduction by our competitors of new and enhanced offerings. We must constantly assess the playing field and determine whether we need to improve or re-allocate resources amongst our existing products and services or create new ones (independently or in conjunction with third parties). Our ability to increase the size and engagement of our user base, attract content partners, advertisers and platform partners and generate revenue will depend on those decisions. We may introduce significant changes to our existing products and services or develop and introduce new and unproven products and services, including technologies with which we have little or no prior development or operating experience. In the past, we have introduced new features to Twitter such as "Moments", a curated collection of Tweets, photos, videos, and Periscope broadcasts about current news stories or events; "In Case You Missed It," which surfaces Tweets a logged-in user may have missed since last accessing Twitter; expanding our character limit to 280 characters for more people around the world; and "Threads," a feature that allows people to more easily thread Tweets together. We are also continuing our work to increase the stability, performance and scale of our ads platform and our mobile application download product, and such work will take place over multiple quarters, and any positive revenue impact will be gradual in its impact. If new or enhanced products, product features or services fail to engage users, content partners and advertisers, we may fail to attract or retain users or to generate sufficient revenue or operating profit to justify our investments, and our business and operating results could be adversely affected. In addition, we have launched and expect to continue to launch strategic initiatives that do not directly generate revenue but which we believe will enhance our attractiveness to users, content partners and advertisers, such as our investments in the health of public conversation on Twitter. In the future, we may invest in new products, product features, services and initiatives to generate revenue, but there is no guarantee these approaches will be successful. We may not be successful in future efforts to generate revenue from our new products or services. If our strategic initiatives do not enhance our ability to monetize our existing products and services, enable us to develop new approaches to monetization or meet the expectations of our users or third-party business partners, we may not be able to maintain or grow our revenue or recover any associated development costs and our operating results could be adversely affected.

If we fail to effectively manage changes to our business and operations, our business and operating results could be harmed.

Providing our products and services to our users is costly and we expect certain of our expenses to continue to increase in the future as we broaden our user base and increase user engagement, as users increase the amount of content they contribute, and as we develop and implement new features, products and services that require more infrastructure, in particular our video product features. Historically, our operating expenses, such as our research and development expenses and sales and marketing expenses, have grown each year as we have expanded our business. As a result, our costs have increased each year due to these factors and we expect to continue to incur increasing costs to support our operations. We expect to continue to invest in our infrastructure so that we can provide our products and services rapidly and reliably to users around the world, including in countries where we do not expect significant near-term monetization.

We intend to fully invest in our highest priorities, while eliminating investment in non-core areas. Finding and maintaining the appropriate balance will require significant expenditures and allocation of valuable management resources. If we fail to achieve the necessary level of efficiency in our organization, our business, operating results and financial condition would be harmed.

Our business and operating results may be harmed by a disruption in our service, or by our failure to timely and effectively scale and adapt our existing technology and infrastructure.

One of the reasons people come to Twitter every day is for real-time information. We have experienced, and may in the future experience, service disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors, hardware failure, capacity constraints due to an overwhelming number of people accessing our products and services simultaneously, computer viruses and denial of service or fraud or security attacks. In the past, for example in July 2019, we have experienced brief service outages during which Twitter.com and Twitter mobile clients were inaccessible as a result, in part, of software misconfigurations. Additionally, although we are investing significantly to improve the capacity, capability and reliability of our infrastructure, we are not currently serving traffic equally through our co-located data centers that support our platform. Accordingly, in the event of a significant issue at the data center supporting most of our network traffic, some of our products and services may become inaccessible to the public or the public may experience difficulties accessing our products and services. Any disruption or failure in our infrastructure could hinder our ability to handle existing or increased traffic on our platform, which could significantly harm our business.

We utilize third-party cloud computing services in connection with certain aspects of our business and operations, and any disruption of, or interference with, our use of such cloud services could adversely impact our business and operations.

As our user base expands and our users generate more content, including photos and videos hosted by Twitter, we may be required to expand and adapt our technology and infrastructure to continue to reliably store, serve and analyze this content. It may become increasingly difficult to maintain and improve the performance of our products and services, especially during peak usage times, as our products and services become more complex and our user traffic increases. In addition, because we lease our data center facilities, we cannot be assured that we will be able to expand our data center infrastructure to meet user demand in a timely manner, or on favorable economic terms. If our users are unable to access Twitter or we are not able to make information available rapidly on Twitter, users may seek other channels to obtain the information, and may not return to Twitter or use Twitter as often in the future, or at all. This would negatively impact our ability to attract users, content partners and advertisers and increase the frequency of users returning to Twitter. We expect to continue to make significant investments to maintain and improve the capacity, capability and reliability of our infrastructure. To the extent that we do not effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and infrastructure to accommodate actual and anticipated changes in technology, our business and operating results may be harmed.

We continue to scale the capacity of, and enhance the capability and reliability of, our infrastructure to support user growth and increased activity on our platform. As our user base and the activity on our platform grow, we expect that investments and expenses associated with our infrastructure will continue to grow. These investments and expenses include the expansion and improvement of our data center operations and related operating costs, additional servers and networking equipment to increase the capacity of our infrastructure, increased utilization of third-party cloud computing and associated costs thereof, increased bandwidth costs, and costs to secure our customers' data. The improvement of our infrastructure requires a significant investment of our management's time and our financial resources.

We have incurred significant operating losses in the past, and we may not be able to maintain profitability.

Since our inception, we have incurred significant operating losses, and, as of June 30, 2019, we had an accumulated deficit of $143.7 million. Our revenue has grown from $664.9 million in 2013 to $3.04 billion in 2018. While we were profitable on a GAAP basis in the six months ended June 30, 2019 and the year ended 2018, we believe that our future revenue growth and our ability to maintain profitability will depend on, among other factors, our ability to attract new users, increase user engagement and ad engagement, increase our brand awareness, compete effectively, maximize our sales efforts, demonstrate a positive return on investment for advertisers, and successfully develop new products and services. Accordingly, you should not rely on the revenue growth of any prior quarterly or annual period as an indication of our future performance. Our costs may increase in future periods as we continue to expend substantial financial resources on:

- our technology infrastructure;
- research and development for our products and services;
- sales and marketing;
- attracting and retaining talented employees;
- strategic opportunities, including commercial relationships and acquisitions; and
- general administration, including personnel costs and legal and accounting expenses related to being a public company.

These investments may not result in increased revenue or growth in our business. Additionally, certain new revenue products or product features may carry higher costs relative to our other products, which may decrease our margins. If we are unable to generate adequate revenue growth and to manage our expenses, we may incur significant losses in the future and may not be able to maintain profitability.

If we are unable to maintain and promote our brand, our business and operating results may be harmed.

We believe that maintaining and promoting our brand is critical to expanding our base of users, content partners and advertisers. Maintaining and promoting our brand will depend largely on our ability to continue to provide useful, reliable and innovative products and services with a focus on a positive user experience, which we may not do successfully. We may introduce new features, products, services or terms of service that users, content partners, advertisers or platform partners do not like, which may negatively affect our brand. Additionally, the actions of content partners may affect our brand if users do not have a positive experience using third-party applications or websites integrated with Twitter or that make use of Twitter content. We will also continue to experience media, legislative or regulatory scrutiny of our decisions regarding user privacy, security, content and other issues, which may adversely affect our reputation and brand. For example, we previously announced our discovery of content (including some advertisements) displayed on our products that may be relevant to government investigations relating to Russian interference in the 2016 U.S. presidential election, which continues to draw media and regulatory scrutiny of our actions with respect to such content. Our brand may also be negatively affected by the actions of users that are hostile or inappropriate to other people, by users impersonating other people, by users identified as spam, by use or perceived use, directly or indirectly, of our products or services by users (including governments and government-sponsored actors) to disseminate information that may be viewed as misleading (or intended to manipulate the opinions of our users), by users introducing excessive amounts of spam on our platform, by third parties obtaining control over users' accounts or by other security or cybersecurity incidents. For example, certain actions taken by a social media marketing company in the past to sell followers and engagement, which were in violation of our policies, drew media and regulatory scrutiny on us. Maintaining and enhancing our brand may require us to make substantial investments and these investments may not achieve the desired goals. If we fail to successfully promote and maintain our brand or if we incur excessive expenses in this effort, our business and operating results could be adversely affected.

Negative publicity could adversely affect our reputation, our business and operating results.

We receive a high degree of media coverage around the world. Negative publicity about our company, including about the quality and reliability of our products or of content shared on our platform, changes to our products, policies and services, our privacy, policy enforcement and security practices (including actions taken or not taken with respect to certain users or accounts or reports regarding government surveillance), litigation, regulatory activity, the actions of our users (including actions taken by prominent users on our platform or the dissemination of information that may be viewed as misleading or as intended to manipulate the opinions of our users), or user experience with our products and services, even if inaccurate, could adversely affect our reputation and the confidence in and the use of our products and services. Such negative publicity could also have an adverse effect on the size, engagement and loyalty of our user base and result in decreased revenue, which could adversely affect our business and operating results.

Spam and fake accounts could diminish the user experience on our platform, which could damage our reputation and deter our current and potential users from using our products and services.

"Spam" on Twitter refers to a range of abusive activities that are prohibited by our terms of service and is generally defined as unsolicited, repeated actions that negatively impact other users with the general goal of drawing user attention to a given account, site, product or idea. This includes posting large numbers of unsolicited mentions of a user, duplicate Tweets, malicious automation, misleading links (e.g., to malware or "click-jacking" pages) or other false or misleading content, and aggressively following and un-following accounts, adding users to lists, sending invitations, Retweeting and liking Tweets to inappropriately attract attention. Our terms of service also prohibit the creation of serial or bulk accounts, both manually or using automation, for disruptive or abusive purposes, such as to Tweet spam or to artificially inflate the popularity of users seeking to promote themselves on Twitter. Although we continue to invest resources to reduce spam and fake accounts on Twitter, which includes our investments to improve the health of the public conversation on Twitter, we expect spammers will continue to seek ways to act inappropriately on our platform. In addition, we expect that increases in the number of users on our platform will result in increased efforts by spammers to misuse our platform. We continuously combat spam and fake accounts, including by suspending or terminating accounts we believe to be spammers and launching algorithmic changes focused on curbing abusive activities. Our actions to combat spam and fake accounts require significant resources and time. If spam and fake accounts increase on Twitter, this could hurt our reputation for delivering relevant content or reduce user growth rate and user engagement and result in continuing operational cost to us.

Action by governments to restrict access to our products and services or censor Twitter content could harm our business and operating results.

Governments have sought, and may in the future seek, to censor content available through our products and services, restrict access to our products and services from their country entirely or impose other restrictions that may affect the accessibility of our products and services for an extended period of time or indefinitely. For example, domestic Internet service providers in China have blocked access to Twitter, and other countries, including Iran, Libya, Pakistan, Turkey and Syria, have intermittently restricted access to Twitter, and we believe that access to Twitter has been blocked in these countries primarily for political reasons. In addition, governments in these or other countries may seek to restrict access to our products and services based on our decisions around user content, providing user information in response to governmental requests, or other matters. In the event that access to our products and services is restricted, in whole or in part, in one or more countries or our competitors are able to successfully penetrate geographic markets that we cannot access, our ability to retain or increase our user base and user engagement may be adversely affected, and our operating results may be harmed.

If our security measures are breached, or if our products and services are subject to attacks that degrade or deny the ability of users to access our products and services, our products and services may be perceived as not being secure, users and advertisers may curtail or stop using our products and services and our business and operating results could be harmed.

Our products and services involve the storage and transmission of users' and advertisers' information, and security breaches expose us to a risk of loss of this information, litigation, increased security costs and potential liability. We also work with third-party vendors to process credit card payments by our customers and are subject to payment card association operating rules. We and our third-party service providers experience cyber-attacks of varying degrees on a regular basis. For example, in October 2016, we experienced a service outage as a result of several distributed denial of service attacks on our domain name service provider, Dyn.

Our products operate in conjunction with, and we are dependent upon, third-party products and components across a broad ecosystem. Additionally, the natural sunsetting of third-party products and operating systems that we use requires that our infrastructure teams reallocate time and attention to migration and updates, during which period potential security vulnerabilities could be exploited. If there is a security vulnerability (such as the Spectre and Meltdown vulnerabilities) in one of these components and if there is a security exploit targeting it, we could face increased costs, liability claims, reduced revenue, or harm to our reputation or competitive position.

Third parties may also gain access to Twitter user names and passwords without attacking Twitter directly by combining credential information from other recent breaches, using malware on victim machines that are stealing passwords for all sites, or a combination of both. In addition, some of our developers or other partners, such as third-party applications to which our users have given permission to Tweet on their behalf, may receive or store information provided by us or by our users through mobile or web applications integrated with us. If these third parties or developers fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used, or disclosed.

As a result, unauthorized parties have obtained, and may in the future obtain, access to our data or our users' or advertisers' data. In addition, a breach of a third-party application that has been trusted by a user could result in the account issuing Tweets, Likes, Retweets, or Direct Messages without such user's knowledge or consent. Any systems failure or actual or perceived compromise of our security that results in the unauthorized access to or release of our users' or advertisers' data, such as credit card data, could significantly limit the adoption of our products and services, as well as harm our reputation and brand and, therefore, our business.

Our security measures may also be breached due to employee error, malfeasance or otherwise. Additionally, outside parties may attempt to fraudulently induce employees, users or advertisers to disclose sensitive information in order to gain access to our data or our users' or advertisers' data or accounts, or may otherwise obtain access to such data or accounts. Since our users and advertisers may use their Twitter accounts to establish and maintain online identities, unauthorized communications from Twitter accounts that have been compromised may damage their personal security, reputations and brands as well as our reputation and brand. Because the techniques used to obtain unauthorized access, disable or degrade service or sabotage systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. We expect to incur significant costs in an effort to detect and prevent security breaches and other security-related incidents, and we may face increased costs in the event of an actual or perceived security breach or other security-related incident. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed, our users and advertisers may be harmed, lose trust and confidence in us, decrease the use of our products and services or stop using our products and services in their entirety. We may also incur significant legal and financial exposure, including legal claims, higher transaction fees and regulatory fines and penalties. Any of these actions could have a material and adverse effect on our business, reputation and operating results.

While our insurance policies include liability coverage for certain of these matters, if we experienced a significant security incident, we could be subject to liability or other damages that exceed our insurance coverage.

Our future performance depends in part on support from our content partners and data partners.

We believe user engagement with our products and services depends in part on the availability of applications and content generated by our content or platform partners. There is no assurance that our content or platform partners will continue to develop and maintain applications and content for our products and services, and if they cease to, then user engagement may decline. In addition, we generate revenue from licensing our historical and real-time data to third parties. If any of these relationships are terminated or not renewed on economic and other terms that are acceptable to us, or if we are unable to enter into similar relationships in the future, our operating results could be adversely affected.

Our international operations are subject to increased challenges and risks.

We have offices around the world and our products and services are available in multiple languages. However, our ability to manage our business and conduct our operations internationally requires considerable management attention and resources and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal and regulatory systems, alternative dispute systems and commercial markets. Our international operations have required and will continue to require us to invest significant funds and other resources. Operating internationally subjects us to new risks and may increase risks that we currently face, including risks associated with:

- recruiting and retaining talented and capable employees in foreign countries and maintaining our company culture across all of our offices;
- providing our products and services and operating across a significant distance, in different languages and among different cultures, including the potential need to modify our products, services, content and features to ensure that they are culturally relevant in different countries;
- increased competition from largely regional websites, mobile applications and services that provide real-time communications and have strong positions in particular countries, which have expanded and may continue to expand their geographic footprint;
- differing and potentially lower levels of user growth, user engagement and ad engagement in new and emerging geographies;
- different levels of advertiser demand;
- greater difficulty in monetizing our products and services;
- compliance with applicable foreign laws and regulations, including laws and regulations with respect to privacy, data security, consumer protection, copyright, fake news, hate speech, spam and content, and the risk of penalties to our users and individual members of management if our practices are deemed to be out of compliance;
- burdens of complying with various foreign laws, including laws related to taxation, content removal, data localization, and regulatory oversight;
- longer payment cycles in some countries;
- credit risk and higher levels of payment fraud;
- operating in jurisdictions that do not protect intellectual property rights to the same extent as the United States;
- compliance with anti-bribery laws including, without limitation, compliance with the Foreign Corrupt Practices Act and the U.K. Bribery Act, including by our business partners;
- currency exchange rate fluctuations;
- foreign exchange controls that might require significant lead time in setting up operations in certain geographic territories and might prevent us from repatriating cash earned outside the United States;
- political and economic instability in some countries;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate; and
- higher costs of doing business internationally, including increased accounting, travel, infrastructure and legal compliance costs.

If we are unable to manage the complexity of our global operations successfully, our business, financial condition and operating results could be adversely affected.

Our business is subject to complex and evolving U.S. and foreign laws and regulations. These laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations or declines in user growth, user engagement or ad engagement, or otherwise harm our business.

We are subject to a variety of laws and regulations in the United States and abroad that involve matters central to our business, including privacy, security, rights of publicity, data protection, content regulation, intellectual property, competition, protection of minors, consumer protection, credit card processing and taxation. Many of these laws and regulations are still evolving and being tested in courts. As a result, it is possible that these laws and regulations may be interpreted and applied in a manner that is inconsistent from country to country and inconsistent with our current policies and practices and in ways that could harm our business, particularly in the new and rapidly evolving industry in which we operate. Additionally, the introduction of new products or services may subject us to additional laws and regulations.

From time to time, governments, regulators and others have expressed concerns about whether our products, services or practices compromise the privacy of users and others. While we strive to comply with applicable data protection laws and regulations, as well as our own posted privacy policies and other obligations we may have with respect to privacy and data protection, the failure or perceived failure to so comply may result, and in some cases has resulted, in inquiries and other proceedings or actions against us by governments, regulators or others. A number of proposals have recently been adopted or are currently pending before federal, state and foreign legislative and regulatory bodies that could significantly affect our business. For example, in June 2018 California enacted legislation, the California Consumer Privacy Act, or CCPA, that will, among other things, require covered companies to provide new disclosures to California consumers, and afford such consumers new abilities to opt-out of certain sales of personal information, when it goes into effect on January 1, 2020. The CCPA was amended in September 2018, and it remains unclear what, if any, modifications will be made to this legislation or how it will be interpreted. Moreover, foreign data protection, privacy, consumer protection, content regulation and other laws and regulations are often more restrictive than those in the United States. In particular, the European Union, or EU, and its member states traditionally have taken broader views as to types of data that are subject to privacy and data protection, and have imposed greater legal obligations on companies in this regard. For example, the GDPR went into effect in May 2018. The GDPR includes more stringent operational requirements for entities processing personal information and significant penalties for non-compliance, including fines of up to €20 million or 4% of total worldwide revenue, whichever is higher. Additionally, we rely on a variety of legal bases to transfer certain personal information outside of the European Economic Area, including the EU-U.S. Privacy Shield Framework, the Swiss-U.S. Privacy Shield Framework, and EU Standard Contractual Clauses, or SCCs. The EU-U.S. Privacy Shield Framework is currently under review by regulatory authorities and it and the SCCs are both the subject of legal challenges in European courts. As a result of these legal challenges, the EU-U.S. Privacy Shield Framework and the SCCs may be modified or invalidated. The absence of successor legal bases for continued data transfer could require us to create duplicative, and potentially expensive, information technology infrastructure and business operations in Europe or limit our ability to collect and use personal information collected in Europe. Any of these changes with respect to EU data protection law could disrupt our business.

Further, following a referendum in June 2016 in which voters in the United Kingdom approved an exit from the EU, the United Kingdom government has initiated a process to leave the EU (often referred to as “Brexit”), which is now expected to occur by the end of October 2019. Brexit could lead to economic and legal uncertainty in the region and could adversely affect the tax, currency, operational, legal and regulatory regimes to which our business is subject. Brexit may adversely affect our revenues and subject us to new regulatory costs and challenges, in addition to other adverse effects that we are unable effectively to anticipate.

The United Kingdom implemented a Data Protection Bill that substantially implements the GDPR, which became law in May 2018. Brexit has created uncertainty with regard to whether the EU will view the UK data protection regulation as adequate under GDPR. Until that is resolved, the requirements for data transfers between the United Kingdom and the EU are unclear.

Legislative changes in the United States, at both the federal and state level, that could impose new obligations in areas such as privacy and liability for copyright infringement or content by third parties such as various Congressional efforts to restrict the scope of the protections available to online platforms under Section 230 of the Communications Decency Act, and our current protections from liability for third-party content in the United States could decrease or change. Additionally, recent amendments to U.S. patent laws may affect the ability of companies, including us, to protect their innovations and defend against claims of patent infringement.

In April 2019, the EU passed the Directive on Copyright in the Digital Single Market (the EU Copyright Directive), which expands the liability of online platforms for user-generated content. Each EU member state has two years to implement it. The EU Copyright Directive may increase our costs of operations, our liability for user-generated content, and our litigation costs.

Additionally, we have relationships with third parties that perform a variety of functions such as payments processing, tokenization, vaulting, currency conversion, fraud prevention and data security audits. The laws and regulations related to online payments are complex, subject to change, and vary across different jurisdictions in the United States and globally. As a result, we may be required to spend significant time, effort and expense to comply with applicable laws and regulations. Any failure or claim of our failure to comply, or any failure or claim of failure by the above-mentioned third parties to comply, could increase our costs or could result in liabilities. Additionally, because Twitter accepts payment via credit cards and is certified as a PCI Level 1 service provider, we are subject to payment card association operating rules and certification requirements, including the Payment Card Industry Data Security Standard.

We currently allow use of our platform without the collection of extensive personal information, such as age. We may experience additional pressure to expand our collection of personal information in order to comply with new and additional regulatory demands or we may independently decide to do so. If we obtain such additional personal information, we may be subject to additional regulation.

Regulatory investigations and settlements could cause us to incur additional expenses or change our business practices in a manner materially adverse to our business.

We are currently the subject of inquiries by the Irish Data Protection Commission with respect to our compliance with the GDPR and expect to continue to be subject to regulatory scrutiny as our business grows and awareness of our brand increases, In the past, we have been subject to regulatory investigations, and expect to continue to be subject to regulatory scrutiny as our business grows and awareness of our brand increases. In March 2011, to resolve an investigation into various incidents, we entered into a settlement agreement with the FTC that, among other things, required us to establish an information security program designed to protect non-public consumer information and also requires that we obtain biennial independent security assessments. The obligations under the settlement agreement remain in effect until the later of March 2, 2031, or the date 20 years after the date, if any, on which the U.S. government or the FTC files a complaint in federal court alleging any violation of the order. We expect to continue to be the subject of regulatory inquiries, investigations and audits in the future by the FTC and other regulators around the world.

It is possible that a regulatory inquiry, investigation or audit might result in changes to our policies or practices, and may cause us to incur substantial costs or could result in reputational harm, prevent us from offering certain products, services, features or functionalities, cause us to incur substantial costs or require us to change our business practices in a manner materially adverse to our business. Violation of existing or future regulatory orders, settlements or consent decrees could subject us to substantial monetary fines and other penalties that could negatively affect our financial condition and operating results.

We may face lawsuits or incur liability as a result of content published or made available through our products and services.

We have faced and will continue to face claims relating to content that is published or made available through our products and services or third-party products or services. In particular, the nature of our business exposes us to claims related to defamation, intellectual property rights, rights of publicity and privacy, illegal content, misinformation, content regulation and personal injury torts. The laws relating to the liability of providers of online products or services for activities of their users remains somewhat unsettled, both within the United States and internationally. This risk may be enhanced in certain jurisdictions outside the United States where we may be less protected under local laws than we are in the United States. For example, we are subject to legislation in Germany that may impose significant fines for failure to comply with certain content removal and disclosure obligations. Other countries, including Singapore, Australia, and the United Kingdom, have implemented or are considering similar legislation imposing penalties for failure to remove certain types of content. In addition, the public nature of communications on our network exposes us to risks arising from the creation of impersonation accounts intended to be attributed to our users or advertisers. We could incur significant costs investigating and defending these claims. If we incur material costs or liability as a result of these occurrences, our business, financial condition and operating results could be adversely affected.

Our intellectual property rights are valuable, and any inability to protect them could reduce the value of our products, services and brand.

Our trade secrets, trademarks, copyrights, patents and other intellectual property rights are important assets. We rely on, and expect to continue to rely on, a combination of confidentiality and license agreements with our employees, consultants and third parties with whom we have relationships, as well as trademark, trade dress, domain name, copyright, trade secret and patent laws, to protect our brand and other intellectual property rights. However, various events outside of our control pose a threat to our intellectual property rights, as well as to our products, services and technologies. For example, we may fail to obtain effective intellectual property protection, or effective intellectual property protection may not be available in every country in which our products and services are available. Also, the efforts we have taken to protect our intellectual property rights may not be sufficient or effective, and any of our intellectual property rights may be challenged, which could result in them being narrowed in scope or declared invalid or unenforceable. There can be no assurance our intellectual property rights will be sufficient to protect against others offering products or services that are substantially similar to ours and compete with our business.

We rely on non-patented proprietary information and technology, such as trade secrets, confidential information, know-how and technical information. While in certain cases we have agreements in place with employees and third parties that place restrictions on the use and disclosure of this intellectual property, these agreements may be breached, or this intellectual property may otherwise be disclosed or become known to our competitors, including through hacking or theft, which could cause us to lose any competitive advantage resulting from this intellectual property.

We are pursuing registration of trademarks and domain names in the United States and in certain jurisdictions outside of the United States. Effective protection of trademarks and domain names is expensive and difficult to maintain, both in terms of application and registration costs as well as the costs of defending and enforcing those rights. We may be required to protect our rights in an increasing number of countries, a process that is expensive and may not be successful or which we may not pursue in every country in which our products and services are distributed or made available.

We are party to numerous agreements that grant licenses to third parties to use our intellectual property, including our trademarks. For example, many third parties distribute their content through Twitter, or embed Twitter content in their applications or on their websites, and make use of our trademarks in connection with their services. If the licensees of our trademarks are not using our trademarks properly, it may limit our ability to protect our trademarks and could ultimately result in our trademarks being declared invalid or unenforceable. We have a policy designed to assist third parties in the proper use of our brand, trademarks and other assets, and we have an internal team dedicated to enforcing our policy and protecting our brand. Our brand protection team routinely receives and reviews reports of improper and unauthorized use of the Twitter brand, trademarks or assets and issues takedown notices or initiates discussions with the third parties to correct the issues. However, there can be no assurance that we will be able to protect against the unauthorized use of our brand, trademarks or other assets. If we fail to maintain and enforce our trademark rights, the value of our brand could be diminished. There is also a risk that one or more of our trademarks could become generic, which could result in them being declared invalid or unenforceable. For example, there is a risk that the word “Tweet” could become so commonly used that it becomes synonymous with any short comment posted publicly on the Internet, and if this happens, we could lose protection of this trademark.

We also seek to obtain patent protection for some of our technology. We may be unable to obtain patent protection for our technologies, and our existing patents, and any patents that may be issued in the future, may not provide us with competitive advantages or distinguish our products and services from those of our competitors. In addition, any patents may be contested, circumvented, or found unenforceable or invalid, and we may not be able to prevent third parties from infringing or otherwise violating them. Effective protection of patent rights is expensive and difficult to maintain, both in terms of application and maintenance costs, as well as the costs of defending and enforcing those rights.

Our Innovator’s Patent Agreement, or IPA, also can limit our ability to prevent infringement of our patents. In May 2013, we implemented the IPA, which we enter into with our employees and consultants, including our founders. The IPA, which applies to our current and future patents, allows us to assert our patents defensively. The IPA also allows us to assert our patents offensively with the permission of the inventors of the applicable patent. Under the IPA, an assertion of claims is considered for a defensive purpose if the claims are asserted: (i) against an entity that has filed, maintained, threatened or voluntarily participated in a patent infringement lawsuit against us or any of our users, affiliates, customers, suppliers or distributors; (ii) against an entity that has used its patents offensively against any other party in the past ten years, so long as the entity has not instituted the patent infringement lawsuit defensively in response to a patent litigation threat against the entity; or (iii) otherwise to deter a patent litigation threat against us or our users, affiliates, customers, suppliers or distributors. In addition, the IPA provides that the above limitations apply to any future owner or exclusive licensee of any of our patents, which could limit our ability to sell or license our patents to third parties. While we may be able to claim protection of our intellectual property under other rights, such as trade secrets or contractual obligations with our employees not to disclose or use confidential information, we may be unable to assert our patent rights against third parties that we believe are infringing our patents, even if such third parties are developing products and services that compete with our products and services. For example, in the event that an inventor of one of our patents leaves us for another company and uses our patented technology to compete with us, we would not be able to assert that patent against such other company unless the assertion of the patent right is for a defensive purpose. In such event, we may be limited in our ability to assert a patent right against another company, and instead would need to rely on trade secret protection or the contractual obligation of the inventor to us not to disclose or use our confidential information. In addition, the terms of the IPA could affect our ability to monetize our intellectual property portfolio.

Significant impairments of our intellectual property rights, and limitations on our ability to assert our intellectual property rights against others, could harm our business and our ability to compete.

Also, obtaining, maintaining and enforcing our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results.

We are currently, and expect to be in the future, party to intellectual property rights claims that are expensive and time consuming to defend, and, if resolved adversely, could have a significant impact on our business, financial condition or operating results.

Companies in the internet, technology and media industries are subject to litigation based on allegations of infringement, misappropriation or other violations of intellectual property or other rights. Many companies in these industries, including many of our competitors, have substantially larger patent and intellectual property portfolios than we do, which could make us a target for litigation as we may not be able to assert counterclaims against parties that sue us for patent, or other intellectual property infringement. In addition, various “non-practicing entities” that own patents and other intellectual property rights often attempt to assert claims in order to extract value from technology companies. From time to time we receive claims from third parties which allege that we have infringed upon their intellectual property rights. Further, from time to time we may introduce new products, product features and services, including in areas where we currently do not have an offering, which could increase our exposure to patent and other intellectual property claims from competitors and non-practicing entities. In addition, although our standard terms and conditions for our Promoted Products and public APIs do not provide advertisers and platform partners with indemnification for intellectual property claims against them, some of our agreements with advertisers, content partners, platform partners and data partners require us to indemnify them for certain intellectual property claims against them, which could require us to incur considerable costs in defending such claims, and may require us to pay significant damages in the event of an adverse ruling. Such advertisers, content partners, platform partners and data partners may also discontinue use of our products, services and technologies as a result of injunctions or otherwise, which could result in loss of revenue and adversely impact our business.

We presently are involved in a number of intellectual property lawsuits, and as we face increasing competition and develop new products, we expect the number of patent and other intellectual property claims against us may grow. There may be intellectual property or other rights held by others, including issued or pending patents, that cover significant aspects of our products and services, and we cannot be sure that we are not infringing or violating, and have not infringed or violated, any third-party intellectual property rights or that we will not be held to have done so or be accused of doing so in the future. Any claim or litigation alleging that we have infringed or otherwise violated intellectual property or other rights of third parties, with or without merit, and whether or not settled out of court or determined in our favor, could be time-consuming and costly to address and resolve, and could divert the time and attention of our management and technical personnel. Some of our competitors have substantially greater resources than we do and are able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. The outcome of any litigation is inherently uncertain, and there can be no assurances that favorable final outcomes will be obtained in all cases. In addition, plaintiffs may seek, and we may become subject to, preliminary or provisional rulings in the course of any such litigation, including potential preliminary injunctions requiring us to cease some or all of our operations. We may decide to settle such lawsuits and disputes on terms that are unfavorable to us. Similarly, if any litigation to which we are a party is resolved adversely, we may be subject to an unfavorable judgment that may not be reversed upon appeal. The terms of such a settlement or judgment may require us to cease some or all of our operations or pay substantial amounts to the other party. In addition, we may have to seek a license to continue practices found to be in violation of a third-party's rights. If we are required, or choose to enter into royalty or licensing arrangements, such arrangements may not be available on reasonable terms, or at all, and may significantly increase our operating costs and expenses. As a result, we may also be required to develop or procure alternative non-infringing technology, which could require significant effort and expense or discontinue use of the technology. An unfavorable resolution of the disputes and litigation referred to above could adversely affect our business, financial condition and operating results.

Many of our products and services contain open source software, and we license some of our software through open source projects, which may pose particular risks to our proprietary software, products, and services in a manner that could have a negative effect on our business.

We use open source software in our products and services and will use open source software in the future. In addition, we regularly contribute software source code to open source projects under open source licenses or release internal software projects under open source licenses, and anticipate doing so in the future. The terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that open source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide or distribute our products or services. Additionally, we may from time to time face claims from third parties claiming ownership of, or demanding release of, the open source software or derivative works that we developed using such software, which could include our proprietary source code, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation and could require us to make our software source code freely available, purchase a costly license or cease offering the implicated products or services unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may not be able to complete it successfully. In addition to risks related to license requirements, use of certain open source software may pose greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of software. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could have a negative effect on our business, financial condition and operating results.

We rely on assumptions and estimates to calculate certain of our key metrics, and real or perceived inaccuracies in such metrics may harm our reputation and negatively affect our business.

The number of our active users is calculated using internal company data that has not been independently verified. While these numbers are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring usage and user engagement across our large user base around the world. For example, there are a number of false or spam accounts in existence on our platform. We estimate that the average of false or spam accounts during the second quarter of 2019 continued to represent fewer than 5% of our mDAU during the quarter. However, this estimate is based on an internal review of a sample of accounts and we apply significant judgment in making this determination. As such, our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have currently estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our active users, but we otherwise treat multiple accounts held by a single person or organization as multiple users for purposes of calculating our active users because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our active users may not accurately reflect the actual number of people or organizations using our platform. We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. Our measures of user growth and user engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology. If advertisers, content or platform partners or investors do not perceive our user metrics to be accurate representations of our user base or user engagement, or if we discover material inaccuracies in our user metrics, our reputation may be harmed and content partners, advertisers and platform partners may be less willing to allocate their budgets or resources to our products and services, which could negatively affect our business and operating results. Further, as our business develops, we may revise or cease reporting metrics if we determine that such metrics are no longer accurate or appropriate measures of our performance. For example, we believe that mDAU, and its related growth, are the best ways to measure our success against our objectives and to show the size of our audience and engagement going forward, so we discontinued disclosing monthly active usage (MAU) after the first quarter of 2019. In the past, we also stopped disclosing timeline views as we no longer believed that metric was helpful in measuring engagement on our platform. If investors, analysts or customers do not believe our reported measures, such as mDAU, are sufficient or accurately reflect our business, we may receive negative publicity and our operating results may be harmed.

We rely in part on application marketplaces and Internet search engines to drive traffic to our products and services, and if we fail to appear high up in the search results or rankings, traffic to our platform could decline and our business and operating results could be adversely affected.

We rely on application marketplaces, such as Apple's App Store and Google's Play, to drive downloads of our mobile applications. In the future, Apple, Google or other operators of application marketplaces may make changes to their marketplaces which make access to our products and services more difficult or limit our use of data to provide targeted advertising. We also depend in part on Internet search engines, such as Google, Apple Spotlight, Bing and Yahoo, to drive traffic to our website. For example, when a user types an inquiry into a search engine, we rely on a high organic search result ranking of our webpages in these search results to refer the user to our website. However, our ability to maintain high organic search result rankings is not within our control. Our competitors' search engine optimization, or SEO, efforts may result in their websites receiving a higher search result page ranking than ours, or Internet search engines could revise their methodologies in a way that would adversely affect our search result rankings. If internet search engines modify their search algorithms in ways that are detrimental to us, or if our competitors' SEO efforts are more successful than ours, the growth in our user base could slow. Our website has experienced fluctuations in search result rankings in the past, and we anticipate similar fluctuations in the future. Any reduction in the number of users directed to our mobile applications or website through application marketplaces and search engines could harm our business and operating results.

Users increasingly access our products and services through mobile and alternative devices, and we need to continue to promote the adoption of our mobile applications, and our business and operating results may be harmed if we are unable to do so.

In the three months ended June 30, 2019, 94 % of our advertising revenue was generated from mobile devices. Since we generate a majority of advertising revenue through users on mobile devices, we must continue to drive adoption of our mobile applications. However, in emerging markets like India and Pakistan, a significant portion of users use feature phones and communicate via SMS messaging, both of which have limited functionality and neither of which may be able to take full advantage of our products and services offered on smartphone or our website or desktop applications. In addition, mobile users frequently change or upgrade their mobile devices. Our business and operating results may be harmed if our users do not install our mobile application when they change or upgrade their mobile device. Although we generate the majority of our advertising revenue from ad engagements on mobile devices, certain of our products and services, including Promoted Trends and Promoted Accounts, receive less prominence on our mobile applications than they do on our desktop applications. This has in the past reduced, and may in the future continue to reduce, the amount of revenue we are able to generate from these products and services as users increasingly access our products and services through mobile and alternative devices. In addition, as new devices and platforms are continually being released, users may consume content in a manner that is more difficult to monetize. If we are unable to develop products and services that are compatible with new devices and platforms, or if we are unable to drive continued adoption of our mobile applications, our business and operating results may be harmed.

Acquisitions, divestitures and investments could disrupt our business and harm our financial condition and operating results.

Our success will depend, in part, on our ability to expand our products, product features and services, and grow our business in response to changing technologies, user and advertiser demands, and competitive pressures. In some circumstances, we may determine to do so through the acquisition of complementary businesses and technologies rather than through internal development, including, for example, our acquisitions of Periscope, a live-streaming video mobile application, and MoPub, a mobile-focused advertising exchange. The identification of suitable acquisition candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions. The risks we face in connection with acquisitions include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- retention of key employees from the acquired company;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- integration of the acquired company's accounting, management information, human resources and other administrative systems and processes;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked effective controls, procedures and policies;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities and other known and unknown liabilities;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, users, former stockholders or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities, and harm our business generally. Future acquisitions could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses, incremental operating expenses or the impairment of goodwill, any of which could harm our financial condition or operating results.

We also make investments in privately-held companies in furtherance of our strategic objectives. We may not realize a return and may recognize a loss on such investments. Many of the instruments in which we invest are non-marketable at the time of our initial investment. Companies in which we invest range from early-stage companies still defining their strategic direction to more mature companies with established revenue streams and business models. The success of our investment in any company is typically dependent on the availability to the company of additional funding on favorable terms, or a liquidity event, such as a public offering or acquisition. If any of the companies in which we invest decrease in value, we could lose all or part of our investment. For example, in the year ended December 31, 2017, we recorded a $62.4 million impairment charge relating to an investment in a privately-held company.

In certain cases, we have also divested or stopped investing in certain products, including products that we acquired. For instance, in January 2017, we divested certain assets related to our Fabric platform. In 2017, we also deprecated certain of our revenue products, including TellApart, which was acquired in 2015. In these cases, we have needed to and may, in the future, need to restructure operations, terminate employees and/or incur other expenses. We may not realize the expected benefits and cost savings of these actions and our results may be harmed.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, and the listing standards of the New York Stock Exchange. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could cause us to be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments. Any such failures could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

If currency exchange rates fluctuate substantially in the future, our operating results, which are reported in U.S. dollars, could be adversely affected.

Our international operations expose us to the effects of fluctuations in currency exchange rates. We incur expenses for employee compensation and other operating expenses at our international locations in the local currency, and accept payment from advertisers or data partners in currencies other than the U.S. dollar. Since we conduct business in currencies other than U.S. dollars but report our operating results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. While we enter into foreign currency forward contracts with financial institutions to reduce the risk that our earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary, exchange rate fluctuations between the U.S. dollar and other currencies could have a material impact on our operating results.

We may not have sufficient cash on hand or the ability to raise the funds necessary for cash settlement upon conversion of our convertible senior notes, to repurchase such notes for cash upon a fundamental change, or repay the Notes at their maturity, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of such notes.

In 2014, we issued $935.0 million in aggregate principal amount of 0.25% convertible senior notes due 2019, or the 2019 Notes, and $954.0 million in aggregate principal amount of 1.00% convertible senior notes due 2021, or the 2021 Notes, in private placements to qualified institutional buyers. In June 2018, we issued an additional $1.15 billion in aggregate principal amount of 0.25% convertible senior notes due 2024, which we refer to as the Notes when taken together with the 2019 Notes and the 2021 Notes, in a private placement to qualified institutional buyers. As of June 30, 2019, we had a total par value of $3.04 billion of outstanding Notes. We have stated that we currently expect to repay the 2019 Notes, which mature in September 2019, with cash on hand.

Holders of the Notes will have the right under the relevant indenture governing the Notes to require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change before the relevant maturity date, in each case at a repurchase price equal to 100% of the principal amount of the respective services of Notes, plus accrued and unpaid interest, if any, to the fundamental change repurchase date. In addition, upon conversion of the Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional shares), we will be required to make cash payments in respect of the Notes being converted. Moreover, we will be required to repay the Notes in cash at their maturity, unless earlier converted or repurchased. However, we may not have sufficient available cash on hand or be able to obtain financing at the time we are required to make cash settlement upon conversion of the Notes, repurchase the Notes upon a fundamental change, or repay the Notes at their maturity. In addition, our ability to repurchase the Notes or pay cash due upon conversions of the Notes may be limited by law, regulatory authority or agreements governing our future indebtedness.

Our ability to refinance the Notes, make cash payments in connection with conversions of the Notes, repurchase the Notes in the event of a fundamental change, or repay the Notes at their maturity will depend on market conditions and our future performance, which is subject to economic, financial, competitive and other factors beyond our control. We also may not use the cash we have raised through the issuance of the Notes in an optimally productive and profitable manner. Since inception we have incurred significant operating losses and we historically had not been cash flow positive and may not be in the future. As a result, we may not have enough available cash or be able to obtain financing on commercially reasonable terms or at all, at the time we are required to make repurchases of notes surrendered therefor or pay cash with respect to notes being converted or at their maturity and our level of indebtedness could adversely affect our future operations by increasing our vulnerability to adverse changes in general economic and industry conditions and by limiting or prohibiting our ability to obtain additional financing for future capital expenditures, acquisitions and general corporate and other purposes. In addition, if we are unable to make cash payments upon conversion of the Notes we would be required to issue significant amounts of our common stock, which would be dilutive to existing stockholders. If we do not have sufficient cash to repurchase the Notes following a fundamental change or repay the Notes at their maturity, we would be in default under the terms of the Notes, which could seriously harm our business. In addition, the terms of the Notes do not limit the amount of future indebtedness we may incur. If we incur significantly more debt, this could intensify the risks described above.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by man-made problems such as terrorism.

A significant natural disaster, such as an earthquake, fire, flood or significant power outage could have a material adverse impact on our business, operating results, and financial condition. Our headquarters and certain of our co-located data center facilities are located in the San Francisco Bay Area, a region known for seismic activity. Despite any precautions we may take, the occurrence of a natural disaster or other unanticipated problems at our data centers could result in lengthy interruptions in our services. In addition, acts of terrorism and other geo-political unrest could cause disruptions in our business. All of the aforementioned risks may be further increased if our disaster recovery plans prove to be inadequate. We have implemented a disaster recovery program, which allows us to move production to a back-up data center in the event of a catastrophe. Although this program is functional, we do not currently serve network traffic equally from each data center, so if our primary data center shuts down, there will be a period of time that our products or services, or certain of our products or services, will remain inaccessible to our users or our users may experience severe issues accessing our products and services.

We do not carry business interruption insurance sufficient to compensate us for the potentially significant losses, including the potential harm to our business that may result from interruptions in our ability to provide our products and services.

We may have exposure to greater than anticipated tax liabilities, which could adversely impact our operating results.

Our income tax obligations are based in part on our corporate operating structure, including the manner in which we develop, value and use our intellectual property and the scope of our international operations. The tax laws applicable to our international business activities, including the laws of the United States, Ireland, and other jurisdictions, are subject to interpretation. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology (or other intangible assets) or intercompany arrangements, which could increase our worldwide effective tax rate and harm our financial condition and operating results. On October 5, 2015, the Organization for Economic Cooperation and Development (OECD), an international association of 34 countries, including the U.S., Ireland, and UK, released the final reports from its Base Erosion and Profit Shifting (BEPS) Action Plans. The BEPS recommendations covered a number of issues, including country-by-country reporting, permanent establishment rules, transfer pricing rules and tax treaties. Future tax reform resulting from this development may result in changes to long-standing tax principles, which could adversely affect our effective tax rate or result in higher cash tax liabilities. We are subject to review and audit by U.S. federal and state and foreign tax authorities. Tax authorities may disagree with certain positions we have taken and any adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. In addition, our future income taxes could be adversely affected by earnings being lower than anticipated in jurisdictions that have lower statutory tax rates and higher than anticipated in jurisdictions that have higher statutory tax rates, by changes in the valuation of our deferred tax assets and liabilities, or by changes in tax laws, regulations or accounting principles, as well as certain discrete items. Furthermore, changes to the taxation of undistributed foreign earnings could change our future intentions regarding reinvestment of such earnings. Greater than anticipated tax expenses, or disputes with tax authorities, could adversely impact our operating results. In addition, many countries in Europe, as well as a number of other countries and organizations, have recently proposed changes to tax laws regarding digital services that could significantly increase our tax obligations in many countries where we do business or require us to change the manner in which we operate our business.

On June 7, 2019, the Ninth Circuit Court of Appeals issued a new opinion in Altera Corp. v. Commissioner which upheld Department of Treasury regulations which require related parties in an intercompany cost-sharing arrangement to share expenses related to stock-based compensation and reversed the prior decision of the United States Tax Court. As a result of the opinion, we recorded an increase in the tax provision of $80.0 million in the second quarter of 2019 related to changes in uncertain tax positions and deferred tax assets related to the intra-entity transfer of an intangible asset in the first quarter of 2019. On July 22, 2019, Altera Corp. filed a petition for a rehearing before the full Ninth Circuit. We will continue to monitor future developments in this case to determine if there will be further impacts to our consolidated financial statements.

Uncertainties in the interpretation and application of the 2017 Tax Cuts and Jobs Act could materially affect our tax obligations and effective tax rate.

The 2017 Tax Cuts and Jobs Act (the "Tax Act") significantly affected U.S. tax law by changing how U.S. income tax is assessed on multinational corporations. The Tax Act requires complex computations not previously provided for in U.S. tax law and the U.S. Department of Treasury has issued and will continue to issue regulations and interpretive guidance that may significantly impact how we will apply the law and impact our results of operations. As additional regulatory and interpretive guidance is issued, we may refine our analysis and make adjustments that differ from amounts initially recorded, which could materially affect our tax obligations and effective tax rate.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under generally accepted accounting principles in the United States, or GAAP, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. As of June 30, 2019, we had recorded a total of $1.30 billion of goodwill and intangible assets. An adverse change in market conditions or financial results, particularly if such change has the effect of changing one of our critical assumptions or estimates, could result in a change to the estimation of fair value that could result in an impairment charge to our goodwill or intangible assets. Any such material charges may have a material negative impact on our operating results.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2018, we had U.S. federal net operating loss carryforwards of approximately $2.85 billion and state net operating loss carryforwards of approximately $1.30 billion. As of December 31, 2018, we had federal R&D credits of $300.4 million and state credits of $236.2 million. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an "ownership change" occurs if there is a cumulative change in our ownership by "5% shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. In the event that it is determined that we have in the past experienced an ownership change, or if we experience one or more ownership changes as a result of future transactions in our stock, then we may be limited in our ability to use our net operating loss carryforwards and other tax assets to reduce taxes owed on the net taxable income that we earn. Any such limitations on the ability to use our net operating loss carryforwards and other tax assets could adversely impact our business, financial condition and operating results.

We may require additional capital to support our operations or the growth of our business, and we cannot be certain that this capital will be available on reasonable terms when required, or at all.

From time to time, we may need additional financing to operate or grow our business. Our ability to obtain additional financing, if and when required, will depend on investor and lender demand, our operating performance, the condition of the capital markets and other factors, and we cannot assure you that additional financing will be available to us on favorable terms when required, or at all. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to the rights of our common stock, and our existing stockholders may experience dilution. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support the operation or growth of our business could be significantly impaired and our operating results may be harmed.

Risks Related to Ownership of Our Common Stock

Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions which could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws include provisions:

- creating a classified board of directors whose members serve staggered three-year terms;
- authorizing "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors; and
- controlling the procedures for the conduct and scheduling of stockholder meetings.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents certain stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of at least two-thirds of our outstanding common stock not held by such 15% or greater stockholder.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying, preventing or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

The market price of our common stock has been and will likely continue to be volatile, and you could lose all or part of your investment.

The market price of our common stock has been and may continue to be highly volatile in response to various factors, some of which are beyond our control. From January 1, 2018 to June 30, 2019, the reported high and low sales prices of our common stock has ranged from $47.79 to $22.04. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this Quarterly Report on Form 10-Q, factors that could cause fluctuations in the market price of our common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market prices and trading volumes of technology stocks;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders;
- rumors and market speculation involving us or other companies in our industry;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial or non-financial metric projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or services;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- our issuance of shares of our common stock, whether in connection with an acquisition or upon conversion of some or all of our outstanding Notes;
- litigation or regulatory action involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;

- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. Any securities litigation can result in substantial costs and a diversion of our management's attention and resources. We are currently subject to securities litigation and may experience more such litigation following any future periods of volatility.

The note hedge and warrant transactions may affect the value of our common stock.

Concurrent with the issuance of the Notes, we entered into note hedge transactions with certain financial institutions, which we refer to as the option counterparties. The note hedge transactions are generally expected to reduce the potential dilution upon any conversion of the Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be. We also entered into warrant transactions with the option counterparties. However, the warrant transactions could separately have a dilutive effect to the extent that the market price of our common stock exceeds the applicable strike price of the warrants.

The option counterparties or their respective affiliates may modify their initial hedge positions by entering into or unwinding various derivatives contracts with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any observation period related to a conversion of Notes or following any repurchase of Notes by us on any fundamental change repurchase date or otherwise). This activity could cause or avoid an increase or a decrease in the market price of our common stock.

In addition, if any such convertible note hedge and warrant transactions fail to become effective, the option counterparties or their respective affiliates may unwind their hedge positions with respect to our common stock, which could adversely affect the value of our common stock.

If securities or industry analysts cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the price of our common stock and trading volume could decline.

The trading market for our common stock is influenced, to some extent, by the research and reports that securities or industry analysts publish about us, our business, our industry, our market or our competitors. If any of the analysts who cover us change their recommendation regarding our common stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock would likely decline. If any analysts who cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price of our common stock or trading volume to decline.

We do not expect to declare any dividends in the foreseeable future.

We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. In addition, our credit facility contains restrictions on payments including payments of cash dividends. Consequently, investors may need to rely on sales of our common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Unregistered Sales of Equity Securities

On May 31, 2019, we issued a total of 306,342 shares of our common stock in connection with the acquisition of one company to certain former shareholders of the acquired company.

The foregoing transaction did not involve any underwriters, any underwriting discounts or commissions, or any public offering. We believe the offer, sale, and issuance of the above securities was exempt from registration under the Securities Act of 1933, as amended (the "Act") by virtue of Section 4(a)(2) of the Act and Regulation S promulgated under the Act, because the issuance of securities to the recipients did not involve a public offering. The recipients of the securities in the transaction represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in the transaction. All recipients had adequate access, through their relationships with us or otherwise, to information about us. The issuance of these securities was made without any general solicitation or advertising.

Issuer Purchases of Equity Securities

None.

Item 6. EXHIBITS

The documents listed in the Exhibit Index of this Quarterly Report on Form 10-Q are incorporated by reference or are filed with this Quarterly Report on Form 10-Q, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document				
101.SCH	XBRL Taxonomy Schema Linkbase Document.				
101.CAL	XBRL Taxonomy Calculation Linkbase Document.				
101.DEF	XBRL Taxonomy Definition Linkbase Document.				
101.LAB	XBRL Taxonomy Labels Linkbase Document.				
101.PRE	XBRL Taxonomy Presentation Linkbase Document.				

† The certifications attached as Exhibit 32.1 that accompany this Quarterly Report on Form 10-Q, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Twitter, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

TWITTER, INC.

Date: July 31, 2019

By: /s/ Jack Dorsey
Jack Dorsey
Chief Executive Officer
(Principal Executive Officer)

Date: July 31, 2019

By: /s/ Ned Segal
Ned Segal
Chief Financial Officer
(Principal Financial Officer)